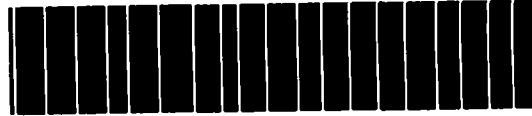




Ontario



42J01NE0017 2.15955 KIPLING

010

Ministry of  
Northern Development  
and Mines

Ministère du  
Développement du Nord  
et des Mines

Mining Lands Section  
159 Cedar Street, 4th Floor  
Sudbury, Ontario  
P3E 6A5

Telephone: (705) 670-7264  
Fax: (705) 670-7262

June 24, 1991

Anne Casselman  
Mineral Research Canada  
1 Industrial Blvd.  
R. R. #2  
Parry Sound, Ontario  
P2A 2W8



*DUPLICATE COPY*

Dear Anne:

Subject: Kaolin Laboratory Work as Assessment Credit

**2.15955**

I have read the material you forwarded, and contacted Brookfield Engineering and Ortech International to discuss the costs for the various lab tests.

1) COSTS FOR THE LAB TESTS

a) Viscosity

I called Brookfield Engineering Laboratories in Stoughton Mass. regarding their lab costs. They charge \$80.00 US per hour. Ortech also uses a Brookfield instrument to perform viscosity tests. The enclosed correspondence outlines their fees, approximately \$35.00 per sample for large batches.

Using your estimates for sample prep and run time about 40 minutes, Brookfield's charges for lab time, and Ortech's fees, I have arrived at \$50.00 per sample for your Viscosity Test.

b) Other costs you provided

The fee schedule you provided for Ortech International January 9, 1991 and a new schedule obtained on June 18, 1991 were used in conjunction with your estimates to arrive at the following costs per sample for the other tests:

Abrasion	(your estimate)	\$ 150.00
Silica Fractionation with Ro Tap:	(Ortech)	\$ 105.00
Particle Size Distribution with Sedigraph:	(Ortech)	\$ 130.00
Moisture:	(Ortech)	\$ 45.00
Brightness:	(Ortech)	\$ 100.00
pH:	(your estimate)	\$ 10.00

Most people include their time to prepare the report. You can add the cost of your time to compile and prepare the data and report also. I have included some copies of the Work Forms.

## 2) CONTENT OF THE REPORT

The report should be presented using the following table of contents:

- 1) Location and access to property
- 2) Claim numbers
- 3) Ownership
- 4) Summary of exploration work to date

Brief outline of what has been done on the property:  
Drilling Program, Other Work.

- 5) Explanation of the tests.

For each test outline:

- equipment used.
- parameter or property of Kaolin tested.
- the importance of testing this property of the Kaolin.
- what "good" results are, (ie) high brightness, low abrasion, etc.
- include a presentation of commercially acceptable properties

Notes:

- 1) For Sedigraph Particle Size Distribution, provide a brief explanation of how to interpret the graphs, ie which parameter belongs to the bar graph, and which belongs to the curve.
- 2) Explain the results for brightness. A "brightness" is presented and several other data values. Which are of use in your determination of whether the product is usable.
- 3) Explain why the moisture test is needed
- 4) Data:

I have proposed a format to present the data. Note that if you currently use a different method of compiling and presenting data in a similar fashion, it will probably be fine. Call me if you have any questions.

However you chose to present the data, you must reference the results to a drill hole location, depth and sample number. If drill logs are filed then include the Work Report number for reference. If the logs are not filed, please include them.

a) Spread sheet format for Viscosity, Abrasion, pH, and Brightness

hole#	sample#	parametres				
		Viscosity	Abrasion	pH	Brightness	
		(CPS)	routine	gm/M2		

Printouts for Sedigraph Particle Size are fine as presented. Rotap results are also fine as presented. You will have to organize the results on a per hole basis as outlined above.

5 Discussion of results

6) Recommendations for follow up work

Maps and Sketches:

- 1) Location map for property
- 2) Location map of drill holes

Appendix

Wood's Kaolin Paper

3) FILING AS ASSESSMENT WORK


You will have to file this Report under "Other Authorized Work". It can be accepted under sub Section 18(9) of the Mining Act Regulations:

"Applications of new methodology or presentation of previously submitted field data which contribute new information of the geotechnical database."

I have enclosed a Sample Statement of Costs which you can follow to complete the documentation for filing, and copies of the Work Report Forms.

If you have any questions, please contact me at this office.

Yours truly,



Blair Kite  
Supervisor Mining Lands Tenure  
Mines & Minerals Division

BK/jl  
Enclosures:

**DUPLICATE  
COPY**

-5-

00T000

**5.0 PRICING**

**RE: OUR QUOTATION NUMBER 930101T**

<b>CHEMEX CODE</b>	<b>DESCRIPTION</b>	<b>MINERAL RESEARCH CANADA INC. PRICE PER SAMPLE</b>
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.

**2.15955**

**PREPARED FOR MINERALS RESEARCH CANADA INC.**

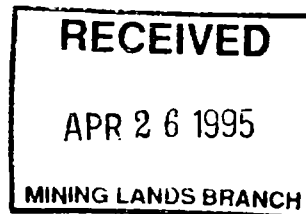
**JANUARY 6, 1993**

Yours truly,



Adriana Alexanru  
Analytical Lab Manager

AA/tmn



**DUPLICATE 2. 15955**  
**COPY**

TESTING PROCEDURES

RECEIVED

APR 26 1995

MINING LANDS BRANCH

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 lentic 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 hallyosite - 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.

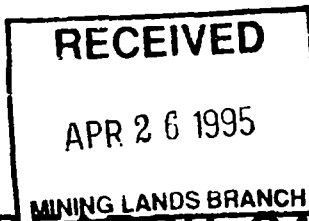
**MOISTURE** - determination of moisture must be completed in order to calculate the Ro-tap screen fractions (percentage of total dry material).

**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  $\text{g/m}^2$  suffered by standard test screen having an abrasion areas of  $305 \text{ mm}^2$ . For the regular and high brightness coating grade kaolins, abrasion value must be less than  $65 \text{ g/m}^2$  and water washed filler grade kaolin abrasion value is less than  $100 \text{ g/m}^2$ .

**DUPLICATE  
COPY**



**000100**

## **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**

**2.15955**

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 371 claims (as of Dec. 15, 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 & 1198514 - 1198526.

The claim numbers that this work is to be filed on are P 900001 - 900100.

### **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 M<sup>c</sup>Carthy & 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.

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 814

PAY TO THE ORDER OF  
MINERAL RESEARCH CANADA INC. 3,222,210.20

DATE July 22, 1993 AMOUNT \$3,222.20

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

MINERAL RESEARCH CANADA INC.

PER

AUTHORIZED SIGNATURE

⑆02482⑆003⑆

118 223 710

⑆000032220⑆

*Now used from this cheque # 3040*

000100



# 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

000100

INVOICE NUMBER

I 9 3 1 9 9 8 7

## BILLING INFORMATION

Date: 10-SEP-93  
Project: KIPLING  
P.O. No.: 0054  
Account: KJE  
Comments: 930101T

Billing: For analysis performed on  
Certificate A9319987

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
--------------	---------------------------------	------------	--------------	--------

52	A-12 W.R.A ICP 0-5 lb prep quote	18.00 3.51	21.51	1118.52
----	-------------------------------------	---------------	-------	---------

Total Cost \$ 1118.52  
(Reg # R100938885 ) GST \$ 78.30  
**TOTAL PAYABLE (CDN) \$ 1196.82**

*Price / sample = \$196.82 / 52 = \$3.77*  
*Claimed 19 samples at \$23.02 = \$437 ✓*



# 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

## 000100

Project: KIPLING  
Comments: ATTN: ANNE CASSELMAN

Page Number : 1  
Total Pages : 2  
Certificate Date: 08-SEP-93  
Invoice No. : 19319987  
P.O. Number : 0054  
Account : KJE

### CERTIFICATE OF ANALYSIS A9319987

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
2175	208 226	14.09	0.20	0.07	1.50	0.45	0.19	< 0.01	0.12	0.08	75.67	0.94	6.02	99.34
2176	208 226	3.56	0.11	0.10	0.56	0.17	0.06	< 0.01	0.12	0.09	92.99	0.47	1.52	99.76
2177	208 226	1.79	0.14	0.17	0.70	0.18	0.07	< 0.01	0.20	0.11	93.92	0.22	0.60	98.31
2178	208 226	3.99	0.14	0.13	0.61	0.18	0.07	< 0.01	0.20	0.09	93.07	0.18	1.61	100.30
2179	208 226	3.87	0.18	0.17	0.50	0.14	0.09	< 0.01	0.26	0.12	93.02	0.14	1.43	99.93
2180	208 226	23.21	0.29	0.07	1.14	0.63	0.28	< 0.01	0.22	0.11	61.31	1.16	10.12	98.55
2181	208 226	10.11	0.40	0.32	1.09	0.27	0.25	< 0.01	0.42	0.22	81.23	0.54	4.41	99.27
2182	208 226	4.75	0.30	0.18	0.82	0.13	0.18	< 0.01	0.21	0.21	90.72	0.30	1.80	99.93
2183	208 226	3.17	0.25	0.27	0.70	0.11	0.14	< 0.01	0.38	0.18	93.36	0.17	1.19	99.95
2184	208 226	4.13	0.38	0.32	1.06	0.13	0.18	0.01	0.44	0.21	90.86	0.29	1.60	99.61
2185	208 226	5.05	0.13	0.06	0.73	0.10	0.03	< 0.01	0.06	0.04	91.51	0.35	2.02	100.10
2186	208 226	8.35	0.11	0.06	0.69	0.16	0.06	< 0.01	0.07	0.05	86.63	0.48	3.38	100.05
2187	208 226	4.24	0.07	0.07	0.54	0.16	0.03	< 0.01	0.04	0.04	93.79	0.27	1.53	100.80
2188	208 226	3.06	0.07	0.04	0.49	0.15	0.02	< 0.01	0.06	0.04	95.18	0.11	1.06	100.30
2189	208 226	2.57	0.07	0.06	0.52	0.14	0.02	< 0.01	0.06	0.04	95.48	0.08	0.83	99.88
2190	208 226	3.43	0.12	0.04	0.71	0.14	0.02	< 0.01	0.04	0.03	92.45	0.14	1.36	98.49
2191	208 226	2.10	0.11	0.05	0.58	0.09	0.03	< 0.01	0.09	0.05	96.75	0.11	0.82	100.80
2192	208 226	1.86	0.10	0.04	0.48	0.06	0.03	< 0.01	0.08	0.04	97.19	0.10	0.68	100.65
2193	208 226	1.99	0.08	0.04	0.39	0.05	0.03	< 0.01	0.08	0.06	96.70	0.18	0.78	100.40
2194	208 226	3.38	0.09	0.06	0.52	0.10	0.03	< 0.01	0.08	0.04	94.47	0.10	1.25	100.15
2195	208 226	4.14	0.10	0.04	0.57	0.13	0.03	< 0.01	0.07	0.03	93.07	0.22	1.57	99.98
2196	208 226	3.15	0.10	0.06	0.64	0.09	0.03	< 0.01	0.07	0.04	94.28	0.27	1.21	99.95
2197	208 226	22.99	0.24	0.04	1.21	0.33	0.13	< 0.01	0.10	0.05	64.85	1.09	10.01	101.05
2434	208 226	4.00	0.11	0.03	0.74	0.10	0.02	< 0.01	0.06	0.03	92.94	0.27	1.53	99.84
2435	208 226	3.54	0.16	0.07	1.01	0.09	0.03	< 0.01	0.08	0.04	93.31	0.29	1.61	100.25
2436	208 226	6.94	0.12	0.06	0.71	0.12	0.04	< 0.01	0.09	0.04	88.91	0.40	2.71	100.15
2437	208 226	2.39	0.10	0.07	0.66	0.09	0.02	< 0.01	0.06	0.03	95.06	0.06	1.06	99.66
2438	208 226	3.00	0.13	0.04	0.66	0.11	0.02	< 0.01	0.07	0.03	95.03	0.04	1.20	100.35
2439	208 226	3.31	0.09	0.04	0.50	0.13	0.02	< 0.01	0.07	0.04	95.00	0.07	1.18	100.45
2440	208 226	3.17	0.09	0.06	0.48	0.09	0.03	< 0.01	0.09	0.04	94.77	0.19	1.13	100.15
2441	208 226	2.62	0.08	0.06	0.55	0.09	0.03	< 0.01	0.09	0.05	95.88	0.09	0.93	100.35
2442	208 226	3.22	0.10	0.08	0.48	0.10	0.03	< 0.01	0.12	0.06	94.33	0.14	1.14	99.88
2443	208 226	2.21	0.10	0.08	0.48	0.08	0.04	< 0.01	0.11	0.06	95.94	0.28	0.77	100.15
17001	208 226	2.90	0.11	0.07	0.34	0.14	0.05	< 0.01	0.14	0.07	94.05	0.05	0.98	98.91
17002	208 226	3.16	0.11	0.09	0.49	0.17	0.05	< 0.01	0.13	0.06	94.68	0.07	1.13	100.15
17003	208 226	7.60	0.16	0.12	0.73	0.17	0.09	< 0.01	0.17	0.08	87.79	0.34	2.82	100.10
17004	208 226	4.02	0.09	0.07	0.49	0.12	0.04	< 0.01	0.11	0.06	93.20	0.39	1.43	99.93
17005	208 226	27.81	0.25	0.11	1.39	0.49	0.20	< 0.01	0.22	0.12	57.31	1.26	11.27	100.45
17006	208 226	26.78	0.21	0.04	5.22	0.57	0.18	< 0.01	0.13	0.09	54.86	1.51	11.23	100.40
17007	208 226	18.62	0.16	0.03	0.98	0.33	0.13	< 0.01	0.18	0.08	69.73	1.03	6.56	97.81

CERTIFICATION:

*Ann B. S. S. S.*



# 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

000100

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17008	208 226	18.15	0.20	0.03	1.71	0.33	0.11	0.02	0.08	0.04	71.33	1.02	7.49	100.50
17009	208 226	2.95	0.09	0.04	0.41	0.06	0.03	< 0.01	0.08	0.06	94.05	0.18	1.10	99.06
17010	208 226	3.69	0.09	0.04	0.37	0.06	0.03	< 0.01	0.08	0.05	94.66	0.16	1.37	100.60
17011	208 226	3.96	0.08	0.03	0.34	0.08	0.03	< 0.01	0.07	0.04	93.63	0.18	1.52	99.77
17012	208 226	2.42	0.08	0.03	0.35	0.06	0.03	< 0.01	0.08	0.06	95.10	0.10	0.86	99.18
17013	208 226	6.73	0.12	0.07	0.75	0.15	0.07	< 0.01	0.10	0.05	88.98	0.51	2.89	100.45
17014	208 226	6.15	0.10	0.07	0.61	0.13	0.06	< 0.01	0.09	0.05	90.28	0.46	2.50	100.50
17015	208 226	11.63	0.14	0.06	0.79	0.28	0.12	< 0.01	0.12	0.05	81.53	0.88	4.76	100.35
17016	208 226	5.23	0.10	0.07	0.60	0.12	0.06	< 0.01	0.09	0.06	91.16	0.62	2.11	100.35
17017	208 226	3.13	0.08	0.06	0.39	0.12	0.03	< 0.01	0.08	0.05	95.09	0.11	1.20	100.35
17018	208 226	5.39	0.10	0.06	0.39	0.12	0.04	< 0.01	0.09	0.05	90.59	0.19	2.12	99.15
17019	208 226	2.97	0.08	0.04	0.35	0.09	0.03	< 0.01	0.08	0.04	95.05	0.21	1.16	100.10

CERTIFICATION:

*Anne Casselman*

MINERAL RESEARCH CANADA INC.  
1 INDUSTRIAL BLVD, R.R. 2 FOLEY  
PARRY SOUND, ONTARIO P2A 2W6

ROYAL BANK OF CANADA  
MAIN BRANCH  
82 DUNDAS STREET WEST  
KITCHEN, ONTARIO M5G 1L5

APR 26 1995  
1094

CHEQUE  
MINING LANDS BRANCH

DATE June 23, 1994 AMOUNT \$2,994.73

PAY TO THE ORDER OF  
The sum of \$2,994 and 73 cts

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

2.15955

MINERAL RESEARCH CANADA INC.  
PER   
AUTHORIZED SIGNATURE

⑆02482⑉003⑆ 118⑉223⑉7⑉⑆ ⑆0000299473⑆

000100

Money left \$ 1999.73



# 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

000100\*

INVOICE NUMBER

I 9 4 1 4 2 3 9

## BILLING INFORMATION

Date: 18-APR-94  
Project: KIPLING  
P.O. No.: 0054  
Account: KJE

### Comments:

Billing: For analysis performed on  
Certificate A9414239

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
--------------	---------------------------------	------------	--------------	--------

48	208 - Assay ring to approx 150 mesh	2.50		
	276 - 16-25 lb crush and split	5.00		
	A-12 W.R.A ICP	21.00	28.50	1368.00

Total Cost \$ 1368.00  
(Reg# R100938885 ) GST \$ 95.76

TOTAL PAYABLE (CDN) \$ 1463.76

*Price/sample = \$1463.76/48 = \$30.50*  
*Planned 31 samples at \$30.50 = \$945.50*

RECEIVED

APR 26 1995

2.15955



# 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

# 000100

Page Number : 1  
Total Pages : 2  
Certificate Date: 18-APR-94  
Invoice No. : 19414239  
P.O. Number : 0054  
Account : KJE

## CERTIFICATE OF ANALYSIS A9414239

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
4216	208 276	2.87	0.15	0.06	0.48	0.12	0.06	< 0.01	0.13	0.01	95.30	0.08	1.18	100.45
4217	208 276	20.17	0.32	0.01	3.58	0.59	0.27	< 0.01	0.19	0.03	65.80	1.15	8.50	100.60
4218	208 276	14.99	0.24	0.01	2.07	0.39	0.19	0.01	0.14	0.02	74.00	0.95	6.23	99.24
4219	208 276	8.50	0.20	0.04	0.99	0.23	0.10	< 0.01	0.14	< 0.01	84.60	0.82	4.04	99.68
4220	208 276	5.71	0.15	0.03	0.56	0.16	0.06	< 0.01	0.13	0.01	90.80	0.47	2.30	100.40
12571	208 276	3.60	0.14	0.07	0.51	0.10	0.04	< 0.01	0.14	0.01	94.30	0.24	1.56	100.70
12572	208 276	3.41	0.13	0.04	0.46	0.09	0.04	< 0.01	0.13	0.01	94.10	0.20	1.31	99.93
12573	208 276	3.01	0.12	0.06	0.51	0.09	0.03	< 0.01	0.12	< 0.01	94.90	0.10	1.30	100.25
12624	208 276	4.97	0.14	0.05	0.52	0.16	0.05	< 0.01	0.14	< 0.01	92.10	0.40	1.81	100.35
12625	208 276	6.30	0.15	0.05	0.65	0.21	0.06	< 0.01	0.13	< 0.01	89.80	0.42	2.68	100.45
12626	208 276	2.77	0.14	0.04	0.38	0.16	0.04	< 0.01	0.11	0.01	95.70	0.15	0.94	100.45
12627	208 276	4.71	0.16	0.08	0.57	0.26	0.06	< 0.01	0.14	0.01	91.60	0.17	1.91	99.68
12628	208 276	5.15	0.14	0.06	0.51	0.29	0.04	< 0.01	0.10	< 0.01	92.00	0.14	1.80	100.25
12629	208 276	3.74	0.16	0.07	0.57	0.12	0.06	< 0.01	0.13	0.01	93.10	0.28	1.59	99.84
12630	208 276	5.56	0.19	0.09	0.74	0.16	0.07	< 0.01	0.13	0.01	90.20	0.45	2.15	99.76
12631	208 276	5.36	0.17	0.09	0.49	0.17	0.06	< 0.01	0.14	0.02	90.80	0.13	2.26	99.70
17020	208 276	3.85	0.17	0.09	0.50	0.09	0.07	< 0.01	0.14	0.03	93.40	0.15	1.49	100.75
17021	208 276	3.41	0.23	0.09	0.57	0.09	0.08	< 0.01	0.14	0.02	93.30	0.17	1.57	99.68
17022	208 276	4.63	0.17	0.11	0.55	0.11	0.07	< 0.01	0.15	0.03	91.90	0.16	1.96	99.85
17023	208 276	6.83	0.18	0.08	0.56	0.15	0.09	< 0.01	0.15	0.02	89.20	0.48	2.93	100.70
17024	208 276	6.21	0.16	0.03	0.45	0.13	0.07	< 0.01	0.09	0.01	90.70	0.41	2.45	100.70
17025	208 276	4.97	0.14	0.02	0.43	0.11	0.04	< 0.01	0.08	< 0.01	92.60	0.16	2.18	100.75
17026	208 276	27.87	0.38	< 0.01	1.49	0.80	0.31	< 0.01	0.11	0.02	58.00	1.12	11.37	101.50
17027	208 276	3.33	0.13	0.04	0.51	0.11	0.04	< 0.01	0.07	< 0.01	94.60	0.13	1.19	100.15
17028	208 276	3.08	0.14	0.09	0.61	0.09	0.06	< 0.01	0.07	0.01	94.90	0.45	1.14	100.65
17029	208 276	3.43	0.13	0.04	0.51	0.10	0.04	< 0.01	0.08	0.01	94.60	0.11	1.40	100.45
17030	208 276	3.27	0.13	0.05	0.52	0.10	0.03	< 0.01	0.08	< 0.01	94.90	0.15	1.33	100.60
17031	208 276	11.54	0.16	< 0.01	0.59	0.13	0.06	< 0.01	0.06	< 0.01	82.20	0.66	5.00	100.45
17032	208 276	4.44	0.14	< 0.01	0.44	0.10	0.04	< 0.01	0.07	< 0.01	93.10	0.23	1.69	100.50
17033	208 276	4.16	0.18	0.04	0.60	0.11	0.04	< 0.01	0.08	0.01	93.60	0.16	1.78	100.75
17034	208 276	3.53	0.14	0.03	0.42	0.09	0.03	< 0.01	0.07	< 0.01	94.80	0.13	1.32	100.60
17035	208 276	2.68	0.15	0.04	0.52	0.08	0.04	< 0.01	0.08	< 0.01	96.10	0.08	1.10	100.90
17036	208 276	10.64	0.18	0.01	0.62	0.17	0.07	< 0.01	0.08	< 0.01	82.90	0.69	4.28	100.65
17037	208 276	9.13	0.15	< 0.01	0.65	0.14	0.04	< 0.01	0.03	< 0.01	85.50	0.76	3.72	100.55
17038	208 276	9.48	0.18	< 0.01	0.81	0.14	0.05	< 0.01	0.02	< 0.01	85.20	0.86	3.88	100.65
17039	208 276	4.61	0.11	0.01	0.55	0.09	0.02	< 0.01	0.04	< 0.01	92.20	0.73	1.99	100.35
17040	208 276	1.69	0.15	< 0.01	0.36	0.05	0.02	< 0.01	0.05	< 0.01	95.90	0.43	0.72	99.40
17041	208 276	2.52	0.13	< 0.01	0.59	0.06	0.02	< 0.01	0.03	< 0.01	95.60	0.33	1.07	100.40
17042	208 276	5.90	0.22	0.09	0.73	0.11	0.09	< 0.01	0.10	0.04	90.70	0.57	2.41	100.95
17043	208 276	5.27	0.21	0.07	0.68	0.10	0.09	< 0.01	0.10	0.04	91.30	0.55	2.20	100.60

CERTIFICATION:

*Phan D 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: KIPLING  
 Comments: ATTN: A. CASSELMAN

000100

Page Number : 2  
 Total Pages : 2  
 Certificate Date: 18-APR-94  
 Invoice No. : 19414239  
 P.O. Number : 0054  
 Account : KJE

**CERTIFICATE OF ANALYSIS A9414239**

SAMPLE	PREP CODE	Al2O3 %	CAO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
17044	208 276	3.09	0.21	0.15	0.79	0.08	0.09	< 0.01	0.13	0.06	94.00	0.76	1.37	100.75
17045	208 276	2.53	0.22	0.15	1.16	0.07	0.08	0.01	0.10	0.04	93.90	0.72	1.25	100.25
17046	208 276	2.70	0.22	0.09	0.61	0.08	0.08	< 0.01	0.12	0.04	95.20	0.31	1.17	100.65
17047	208 276	2.50	0.22	0.19	1.73	0.09	0.09	0.01	0.12	0.06	92.80	0.73	1.56	100.10
17048	208 276	29.54	0.34	0.09	1.86	0.45	0.17	0.01	0.15	0.02	54.00	1.09	13.28	101.00
17049	208 276	9.06	0.24	0.16	1.36	0.17	0.10	0.01	0.13	0.05	83.30	0.92	4.62	100.10
17050	208 276	30.20	0.33	0.06	1.56	0.56	0.19	< 0.01	0.11	0.02	52.70	1.04	14.26	101.05
	208 276	19.71	0.44	0.06	2.60	0.46	0.46	0.02	0.14	0.02	67.00	1.06	9.22	101.20

CERTIFICATION: *John D. Mac*

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: 52.0'	R. R. # 2
Claim No.: P825798	Parry Sound, ON
Easting: 5250 E	P2A 2W8
Northing: 290 N	Hole No.: 92-9
Azimuth: 50° 08' 57" N, 82° 09' 05" W	
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'	106.0'	Kss
106.0'	109.5'	Sandy Clay
109.5'	142.0'	Kss
142.0'	150.0'	Kss & Sandy Clay
150.0'	160.5'	Kss
160.5'	163.0'	Clay
163.0'	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

2.15955

RECEIVED  
APR 26 1995  
MINING LANDS BRANCH

MINERAL RESEARCH  
*A. Casselman*  
Jan 24 1995

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, 6.13% 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, 13.65% kaolin.
124.0'	128.0'	17019	Kss - medium grain, as above, 7.52% kaolin.
128.0'	132.0'	17020	Kss - as above, 9.75% kaolin.
132.0'	137.0'	17021	Kss - as above, some drilling debris, fining downsection to fine grain, 8.63% kaolin.
137.0'	142.0'	17022	Kss - as above, medium grain, 11.72% kaolin.
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, 17.29% kaolin.
150.0'	155.0'	17024	Kss - as above, fine grain, 15.72% kaolin.
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, 12.58% kaolin.

160.5'	163.0'	17026	Clay - competent, fragmented, medium yellow/brown, pliable, highly moulded, 70.56% kaolin.
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, 8.43% kaolin.
169.0'	171.0'	17028	Kss - medium grain, white, minor illite and heavies, heavies banding, 7.80% kaolin.
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, 8.68% kaolin.
175.0'	178.5'	17030	Kss - as above, 8.28% kaolin.
178.5'	181.0'	17031	Sandy Clay - fine grain, illitic, grey becoming buff, more clay-rich downsection, 29.22% kaolin.
181.0'	189.0'	17032	Kss - white, becoming light grey, minor illite and heavies, fine grain, 11.24% kaolin.
189.0'	193.0'	17033	Kss - white, as above, 10.53% kaolin.
193.0'	196.0'	17034	Kss - as above, 8.94% kaolin.
196.0'	201.0'	17035	Kss - as above, 6.78% kaolin.
201.0'	203.0'	17036	Sandy Clay - buff, illitic, pliable, competent, darker more clay-rich sections, 26.94% kaolin.
203.0'	207.0'	17037	Sandy Clay - as above, drill core gouging, 23.11% kaolin.
207.0'	212.5'	17038	Sandy Clay - as above, 24.00% kaolin.
212.5'	215.0'	17039	Kss - fine grain, white, minor illite and heavies, 11.67% kaolin.
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, 4.28% kaolin.

- |        |        |       |   |
|--------|--------|-------|---|
| 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, 6.38% kaolin. |
| 222.0' | 225.0' | 17042 | Kss - medium grain, as above, white, high percentage heavies, 0.5' sandy clay at 223.5', dark buff, illitic, competent, pliable, kss fine grain 224.0' - 225.0', 14.94% kaolin.   |
| 225.0' | 228.0' | 17043 | Kss - fine grain, light brown to white, minor illite and heavies, clay-rich in areas, 13.34% kaolin.  |
| 228.0' | 231.0' | 17044 | Kss - as above, heavies concentrations, 7.82% kaolin.   |
| 231.0' | 234.0' | 17045 | Kss - as above, 6.41% kaolin.   |
| 234.0' | 237.0' | 17046 | Kss - as above, 6.84% kaolin.   |
| 237.0' | 239.5' | 17047 | Kss - as above, light brown, yellow & grey at lower contact, 6.33% kaolin.  |
| 239.5' | 243.0' | 17048 | Clay - chocolate brown, competent, pliable, illitic, some lighter sandy sections, carbonaceous, less pliable downsection, sulphureous smell, some hematitic laminations, 74.78% kaolin.   |
| 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, 22.94% kaolin.  |
| 244.5' | 250.0' | 17050 | Clay - chocolate brown, competent, very pliable, carbonaceous, illitic, 76.46% kaolin.  |

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EOH - 250.0'

Section 92-9

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Claim No.: P825798

Hole Length: 250.0'

Overburden Depth: 42.0'

Astronomic Azimuth: 50° 08' 57" N, 82° 09' 05" W

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:  $50^{\circ} 08' 57''$  W.  $82^{\circ} 09' 05''$  N

Location: 850.0' at  $175^{\circ}$  to claim post no. 1

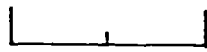
Scale: 1.0" = 50.0' or 1:600

Northing: 290 N

Easting: 5250 E

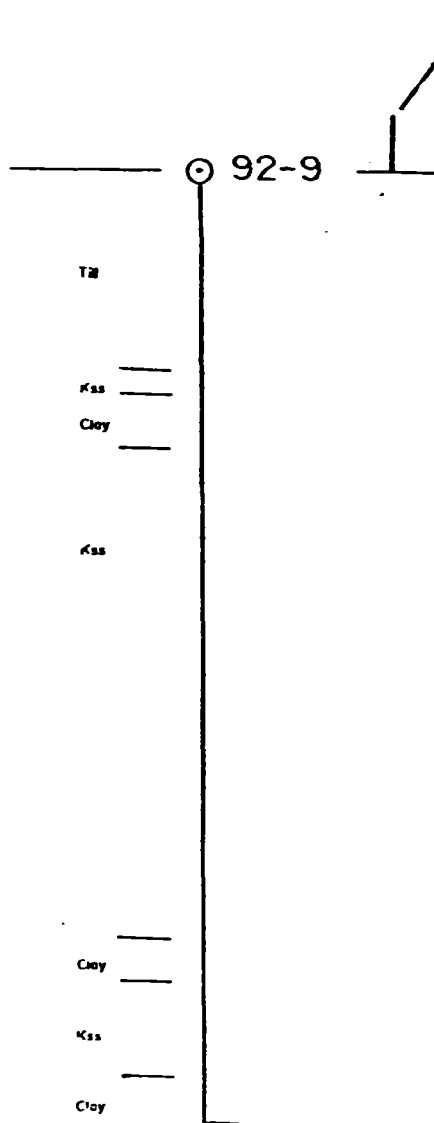
Dip:  $-90^{\circ}$

---



50.0'

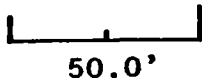
Gridline 5300





Section 92-9

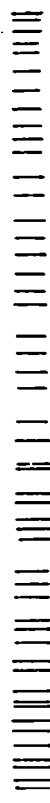
Claim No.: P825798  
 Hole Length: 250.0'  
 Overburden Depth: 42.0'  
 Astronomic Azimuth: 50° 08' 57" N, 82° 09' 05" W  
 Location: 850.0' at 175° to claim post no. 1  
 Scale: 1.0" = 50.0' or 1:600  
 Northing: 290 N  
 Easting: 5250 E  
 Dip: -90°



Gridline 5300

92-9

17001	7.34%
17002	8.00%
17003	11.24%
17004	10.10%
17005	78.41%
17006	67.72%
17007	47.14%
17008	45.95%
17009	7.67%
17010	9.34%
17011	11.30%
17012	6.13%
17013	17.84%
17014	15.57%
17015	21.44%
17016	63.26%
17017	7.92%
17018	13.65%
17019	7.52%
17020	1.77%
17021	8.63%
17022	11.72%
17023	17.29%
17024	15.77%
17025	12.54%
17026	71.54%
17027	8.43%
17028	7.00%
17029	8.60%
17030	8.23%
17031	21.33%
17032	11.24%
17033	10.53%
17034	9.94%
17035	6.70%
17036	26.14%
17037	23.10%
17038	24.80%
17039	11.67%
17040	4.20%
17041	4.20%
17042	16.14%
17043	12.34%
17044	7.07%
17045	4.47%
17046	1.04%
17047	1.32%
17048	16.70%
17049	72.14%
17050	76.64%



MINERAL RESEARCH CANADA INC.  
1 INDUSTRIAL BLVD., R.R. 2 FOLEY  
PARRY SOUND, ONTARIO P2A 2W6

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

PAY TO THE ORDER OF **the sum of \$2,994.73**

**2.15955**

CHEQUE 1094

TO THE ORDER OF

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

RECEIVED

APR 26 1995

DATE

June 23, 1994


AMOUNT

\$2,994.73

MINING LANDS BRANCH

MINERAL RESEARCH CANADA INC.

PER



Authorized Signatory

⑆02482⑆003⑆

118⑆223⑆7⑆⑆

⑆0000299473⑆

000100

money left @ 2994.73



# 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

## 000100

INVOICE NUMBER

I 9 4 1 4 0 3 0

### BILLING INFORMATION

Date: 7-APR-94

Project:

P.O. No.:

Account: KJE

Comments:

Billing: For analysis performed on Certificate A9414030

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 ANALYSED FOR  
SAMPLES CODE - DESCRIPTION

UNIT PRICE SAMPLE PRICE AMOUNT

19 244 - Pulp; prev. prepared at Chemex 0.00 18.00 18.00 342.00  
A-12 W.R.A ICP

Total Cost \$ 342.00  
(Reg# R100938885 ) GST \$ 23.94

TOTAL PAYABLE (CDN) \$ 365.94

*Price/sample = \$365.94/19 = \$19.26*  
*Claimed 13 samples at \$19.26 = \$250*

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APR 26 1995  
MINING LANDS BRANCH

*6011000*



# Chemex Labs Ltd.

Analytical Chemists • Geochemists • Registered Assayers  
 5175 Timberlea Blvd., Mississauga,  
 Ontario, Canada L4W 2S3  
 PHONE: 416-624-2808

To: MINERAL RESEARCH CANADA INC.

1 INDUSTRIAL BLVD.  
 PARRY SOUND, ON  
 P2A 2W8

Project: Comments: ATTN: MARCUS MARTIN

## 000100

Page Number : 1  
 Total Pages : 1  
 Certificate Date: 06-APR-94  
 Invoice No. : 19414030  
 P.O. Number :  
 Account : KJE

### CERTIFICATE OF ANALYSIS A9414030

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
16425	244 200	3.02	0.17	0.07	0.74	0.07	0.05	< 0.01	0.12	0.05	94.50	0.11	1.38	100.30
16426	244 200	2.31	0.15	0.08	0.51	0.06	0.04	< 0.01	0.12	0.04	95.90	0.08	0.98	100.30
16427	244 200	3.95	0.15	0.07	0.51	0.06	0.04	< 0.01	0.11	0.06	93.20	0.19	1.68	100.05
16428	244 200	13.96	0.20	0.05	0.77	0.15	0.08	< 0.01	0.12	0.07	78.00	0.72	5.91	100.05
16429	244 200	5.29	0.17	0.07	0.54	0.07	0.11	< 0.01	0.11	0.05	90.90	0.30	2.17	99.79
16430	244 200	2.98	0.16	0.07	0.52	0.05	0.06	< 0.01	0.11	0.05	94.20	0.26	1.26	99.73
16435	244 200	4.31	0.16	0.06	0.49	0.10	0.15	< 0.01	0.12	0.06	93.30	0.20	1.67	100.65
16436	244 200	3.08	0.16	0.09	0.46	0.13	0.06	< 0.01	0.14	0.05	94.60	0.08	1.22	100.10
16437	244 200	4.70	0.19	0.08	0.58	0.18	0.08	< 0.01	0.14	0.07	91.50	0.26	1.94	99.73
16438	244 200	14.22	0.25	0.07	0.90	0.31	0.17	< 0.01	0.15	0.09	76.70	0.77	6.05	99.69
16439	244 200	4.20	0.20	0.09	0.63	0.15	0.07	< 0.01	0.16	0.05	93.20	0.12	1.59	100.50
16440	244 200	5.69	0.17	0.06	0.53	0.15	0.06	< 0.01	0.14	0.05	90.80	0.25	2.35	100.25
16445	244 200	4.10	0.14	0.06	0.50	0.12	0.05	< 0.01	0.11	0.04	92.60	0.16	1.75	99.64
16466	244 200	3.41	0.16	0.14	0.72	0.12	0.07	< 0.01	0.11	0.06	93.60	0.51	1.44	100.35
16467	244 200	7.94	0.21	0.09	1.37	0.16	0.09	< 0.01	0.13	0.06	85.90	0.37	3.56	99.89
16468	244 200	3.59	0.14	0.08	0.51	0.10	0.05	< 0.01	0.11	0.04	94.30	0.15	1.45	100.55
16469	244 200	6.42	0.18	0.08	0.76	0.12	0.08	< 0.01	0.13	0.05	89.40	0.47	2.70	100.40
16470	244 200	6.53	0.20	0.06	0.63	0.10	0.06	< 0.01	0.12	0.04	89.70	0.42	2.71	100.60
16475	244 200	11.66	0.23	0.04	0.93	0.12	0.08	< 0.01	0.12	0.06	80.70	0.72	5.00	99.67

CERTIFICATION:

*Marcus Martin*

Rotary 9105 =

moisture 45

Sediment \$ 130

30 samples x \$ 280 =

\$ 5400

Claimed Total

# 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 %
<i>Hole 92-3</i>	+ 4	2.0	9.0
	+ 40	4.2	
	+100	12.0	
	+200	5.9	
	+325	4.3	
16401 134'-141.5'	-325	71.6	10.6
	+ 4	1.0	
	+ 40	3.4	
	+100	14.1	
	+200	2.6	
16402 141.5'-146.5'	+325	2.7	12.8
	-325	76.2	
	+ 4	2	
	+ 40	2.4	
	+100	6.1	
16403 146.5'-152'	+200	9.2	20.6
	+325	6.8	
	-325	75.5	
	+ 4	2	
	+ 40	2	
16404 152'-155'	+100	0.1	17.0
	+200	0.1	
	+325	0.3	
	-325	99.5	
	+ 4	2	
16405 155'-159'	+ 40	0.1	17.0
	+100	0.5	
	+200	0.1	
	+325	0.8	
	-325	98.5	

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 APR 26 1995  
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*R. Malmstein*

000100

**2.1595 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 %
<i>hole 92-3</i> 16406	+ 4	0	19.0
	+ 40	0.2	
	+100	0.4	
	+200	1.5	
	+325	4.0	
159'-163'	-325	93.9	
16407	+ 4	0	13.8
	+ 40	0	
	+100	0.1	
	+200	1.4	
	+325	4.3	
163'-165'	-325	94.2	
16408	+ 4	5.5	1.0
	+ 40	52.8	
	+100	17.4	
	+200	5.1	
	+325	2.4	
165'-167'	-325	11.8	
16409	+ 4	18.0	0.7
	+ 40	43.8	
	+100	21.7	
	+200	3.1	
	+325	1.2	
167'-172'	-325	12.2	
16410	+ 4	19.0	0.4
	+ 40	46.0	
	+100	16.0	
	+200	2.7	
	+325	1.3	
172'-177.5'	-325	15.0	

*R. Malmstrom*

000100

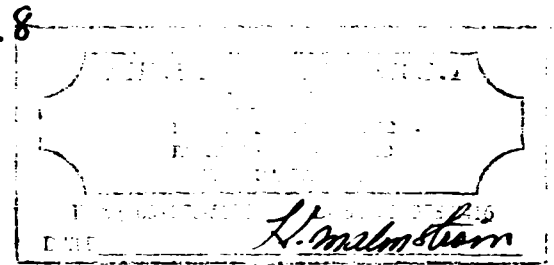
# MINERAL RESEARCH CANADA

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

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

## ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %
<i>Hole 92-3</i>  16411 172'-181'	+ 4	0	
	+ 40	0.9	
	+100	0.7	
	+200	9.8	7.8
	+325	10.8	
	-325	77.8	
16412 181'-182'	+ 4	0	
	+ 40	0	
	+100	0.2	
	+200	4.0	9.8
	+325	10.9	
	-325	84.9	
16413 182'-184'	+ 4	0	
	+ 40	2.7	
	+100	2.1	
	+200	20.4	4.0
	+325	12.3	
	-325	62.5	
16414 184'-186'	+ 4	0	
	+ 40	8.3	
	+100	10.5	
	+200	28.1	1.0
	+325	12.3	
	-325	40.8	
16415 186'-190'	+ 4	0.9	
	+ 40	59.6	
	+100	25.3	
	+200	5.0	12.4
	+325	1.6	
	-325	7.6	



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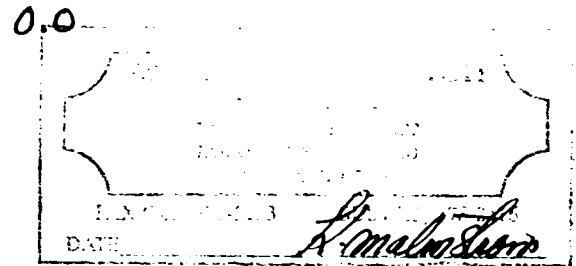
# MINERAL RESEARCH CANADA

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

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

## ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %
<i>Hole 92-3</i>	+ 4	0	
	+ 40	74.6	
	+100	17.2	
	+200	1.3	
	+325	0.5	
	-325	6.4	
<i>16416</i> <i>190'-196'</i>	+ 4	2.8	
	+ 40	70.9	
	+100	12.3	
	+200	2.2	
	+325	0.8	
	-325	11.0	
<i>16417</i> <i>196'-198'</i>	+ 4	7.3	
	+ 40	67.9	
	+100	15.9	
	+200	1.7	
	+325	0.5	
	-325	6.7	
<i>16418</i> <i>198'-203'</i>	+ 4	0	
	+ 40	35.5	
	+100	54.3	
	+200	1.6	
	+325	0.7	
	-325	7.9	
<i>16419</i> <i>203'-208'</i>	+ 4	2.7	
	+ 40	61.8	
	+100	26.7	
	+200	1.4	
	+325	0.4	
	-325	7.0	
<i>16420</i> <i>208'-211'</i>	+ 4	0	
	+ 40	74.6	
	+100	17.2	
	+200	1.3	
	+325	0.5	
	-325	6.4	



8.5

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5.7

8.1

7.0

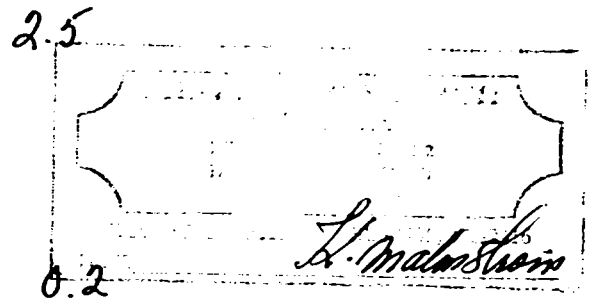
# MINERAL RESEARCH CANADA

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

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

## ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %
<i>Hole 92-3</i>  <i>16421</i>	+ 4	15.9	
	+ 40	65.8	
	+100	5.1	
	+200	1.8	
	+325	0.8	
	-325	10.6	
<i>211'-217'</i>  <i>16422</i>	+ 4	19.3	
	+ 40	67.2	
	+100	5.1	
	+200	1.4	
	+325	0.7	
	-325	6.3	
<i>217'-221'</i>  <i>16423</i>	+ 4	5.8	
	+ 40	77.8	
	+100	3.9	
	+200	1.4	
	+325	0.6	
	-325	10.5	
<i>221'-225'</i>  <i>16424</i>	+ 4	34.7	
	+ 40	43.3	
	+100	11.4	
	+200	3.3	
	+325	0.7	
	-325	6.6	
<i>225'-229.25'</i>  <i>16425</i>	+ 4	0.1	
	+ 40	77.7	
	+100	13.3	
	+200	2.3	
	+325	0.7	
	-325	5.9	
<i>229.25' - 233'</i>			



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0.3

0.0

0.7

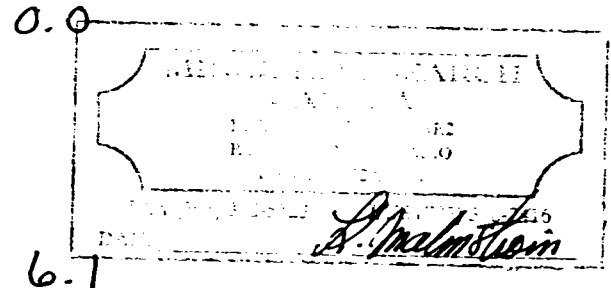
# MINERAL RESEARCH CANADA

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

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

## ANALYSIS REPORT

SAMPLE #	SCREEN	%	MOISTURE %
<i>Hole 92-3</i>	+ 4	0	
	+ 40	79.7	
	+100	12.1	
	+200	2.1	
	+325	0.5	
	-325	5.6	
<i>16426</i>	+ 4	0.1	
	+ 40	70.4	
	+100	15.7	
	+200	2.5	
	+325	0.7	
	-325	10.6	
<i>233'-237'</i>	+ 4	0	
	+ 40	20.9	
	+100	25.2	
	+200	12.7	
	+325	4.9	
	-325	36.3	
<i>16427</i>	+ 4	0	
	+ 40	19.1	
	+100	57.9	
	+200	9.0	
	+325	1.7	
	-325	12.3	
<i>237'-240'</i>	+ 4	0	
	+ 40	57.6	
	+100	29.8	
	+200	2.9	
	+325	0.9	
	-325	8.8	
<i>16428</i>	+ 4	0	
	+ 40	19.1	
	+100	57.9	
	+200	9.0	
	+325	1.7	
	-325	12.3	
<i>240'-242.75'</i>	+ 4	0	
	+ 40	57.6	
	+100	29.8	
	+200	2.9	
	+325	0.9	
	-325	8.8	
<i>16429</i>	+ 4	0	
	+ 40	19.1	
	+100	57.9	
	+200	9.0	
	+325	1.7	
	-325	12.3	
<i>242.75'-245'</i>	+ 4	0	
	+ 40	57.6	
	+100	29.8	
	+200	2.9	
	+325	0.9	
	-325	8.8	
<i>16430</i>	+ 4	0	
	+ 40	19.1	
	+100	57.9	
	+200	9.0	
	+325	1.7	
	-325	12.3	
<i>245'-250'</i>	+ 4	0	
	+ 40	19.1	
	+100	57.9	
	+200	9.0	
	+325	1.7	
	-325	12.3	



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10.2

10.9

7.0

Rotary <sup>\$</sup>105 =  
moisture 45  
Sedigraph <sup>\$</sup>130

19 samples x <sup>\$</sup>280 = \$

Claimed Total 19 samples x <sup>\$</sup>280 = \$ 3360

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APR 26 1995

# 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 %
<i>Hole 87-212</i> 16551	+ 4	0	2.2
	+ 40	1.8	
	+100	6.1	
	+200	4.7	
	+325	4.6	
<i>111' - 114'</i>	-325	82.8	
	+ 4	0	1.3
	+ 40	1.0	
	+100	5.5	
	+200	2.9	
+325	4.4		
<i>114' - 119'</i>	-325	86.3	
	+ 4	0.7	2.0
	+ 40	0.9	
	+100	3.5	
	+200	3.4	
+325	2.2		
<i>16553</i> <i>119' - 123'</i>	-325	87.3	
	+ 4	0	0.7
	+ 40	0.1	
	+100	10.6	
	+200	19.8	
+325	8.7		
<i>16554</i> <i>123' - 125'</i>	-325	60.9	
	+ 4	0	2.1
	+ 40	0.1	
	+100	0.6	
	+200	1.9	
+325	4.8		
<i>16555</i> <i>125' - 128'</i>	-325	92.6	

**RECEIVED**

APR 26 1995

MINING LANDS BRANCH

2.15955

*L. Melin Stron*

000100

# 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 %
Hole 89-212 16556 128' - 130'	+ 4	2	1.3
	+ 40	0.1	
	+100	33.4	
	+200	21.4	
	+325	4.6	
	-325	43.5	
16557 130' - 133'	+ 4	2	1.3
	+ 40	2	
	+100	1.0	
	+200	2.0	
	+325	5.2	
	-325	71.3	
16558 133' - 135'	+ 4	2	1.6
	+ 40	0.1	
	+100	1.3	
	+200	5.6	
	+325	5.5	
	-325	37.3	
16559 135' - 137'	+ 4	2	0.6
	+ 40	13.7	
	+100	30.6	
	+200	15.0	
	+325	5.1	
	-325	35.4	
16560 137' - 140'	+ 4	2	1.4
	+ 40	1.1	
	+100	1.6	
	+200	1.5	
	+325	2.7	
	-325	23.1	

000100

*H. Malmstrom*

# 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 %
Lot 89-212 16561 140'-145'	+ 4	5	6.7
	+ 40	2.7	
	+100	2.7	
	+200	2.7	
	+325	1.7	
	-325	37.6	
16562 145'-150'	+ 4	2	2.1
	+ 40	4.2	
	+100	24.2	
	+200	7.1	
	+325	3.6	
	-325	58.7	
	+ 4		
	+ 40		
	+100		
	+200		
	+325		
	-325		
	+ 4		
	+ 40		
	+100		
	+200		
	+325		
	-325		

*H. Malmstrom*

000100

SAMPLE DIRECTORY/NUMBER: DATA7 /319  
 SAMPLE ID: Hole PJ 88-2 # 17251  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 88 kilocounts/sec

UNIT NUMBER: 1  
 START 12:48:28 11/08/94  
 REPRT 13:00:40 11/08/94  
 TOT RUN TIME 0:07:35  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7635 cp  
 RUN TYPE: High Speed

STARTING DIAMETER: 100.00  $\mu$ m  
 ENDING DIAMETER: 0.40  $\mu$ m

REYNOLDS NUMBER: 1.49  
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 0.88  $\mu$ m                      MODAL DIAMETER: 1.13  $\mu$ m

DIAMETER ( $\mu$ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
100.00	98.1	1.9
80.00	98.2	-0.1
60.00	98.5	-0.3
50.00	98.9	-0.4
40.00	99.3	-0.4
30.00	98.9	0.4
25.00	98.0	0.9
20.00	96.9	1.1
15.00	95.5	1.4
10.00	91.5	4.0
8.00	88.9	2.6
6.00	84.9	4.1
5.00	81.8	3.1
4.00	78.1	3.7
3.00	73.5	4.5
2.00	67.4	6.2
1.50	62.2	5.2
1.00	52.8	9.4
0.80	47.9	4.8
0.60	42.3	5.7
0.50	38.9	3.4
0.40	34.7	4.2

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 APR 26 1995  
 MINING LANDS BRANCH

[Handwritten mark]

*A. Malmstrom*

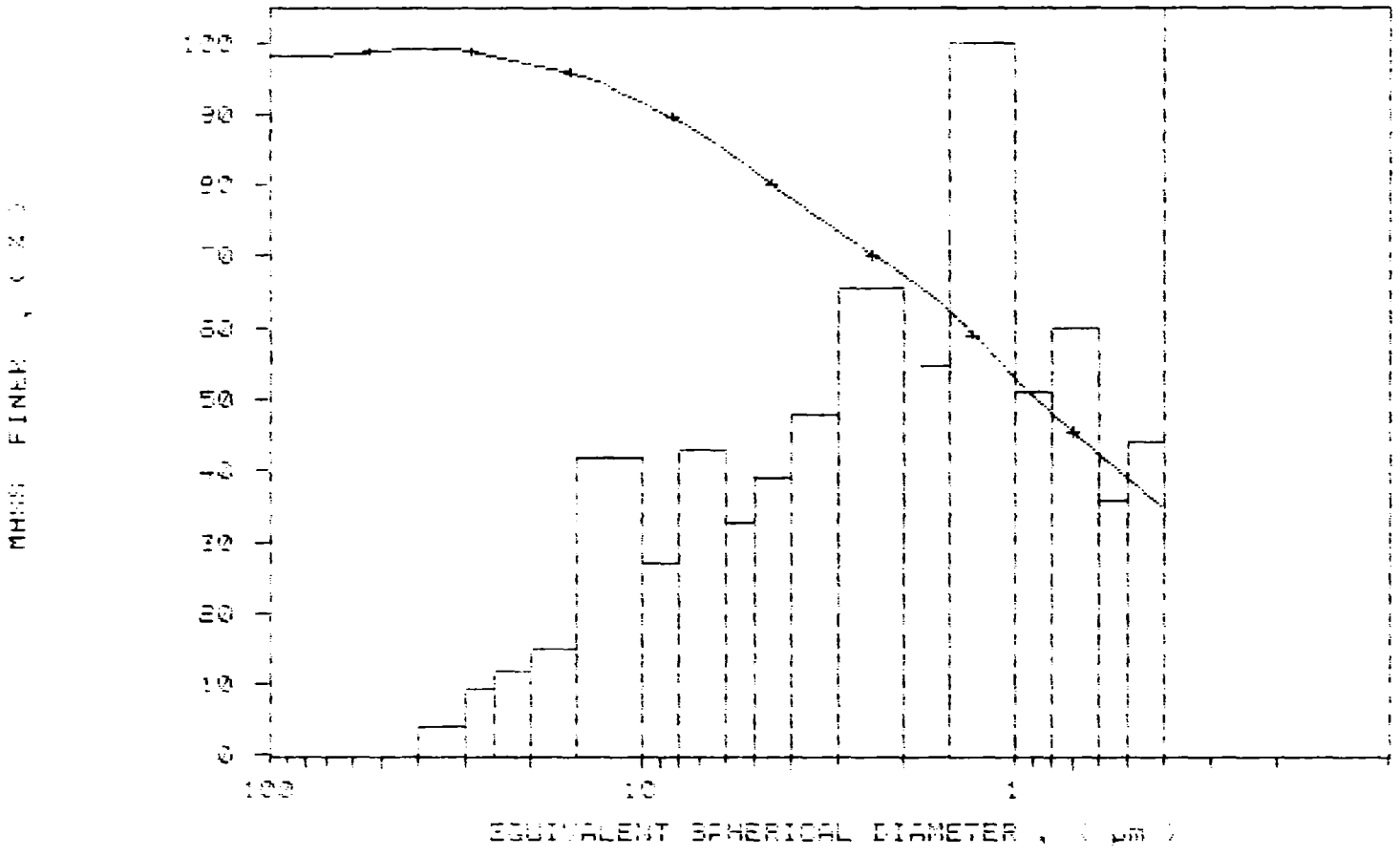
000100



SAMPLE DIRECTORY/NUMBER: DATA7 /319  
 SAMPLE ID: Hole PJ 88-2 # 17251  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 88 kilocounts/sec

UNIT NUMBER: 1  
 START 12:48:28 11/08/94  
 REPT 13:00:40 11/08/94  
 TOT RUN TIME 0:07:35  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7635 cp  
 RUN TYPE: High Speed

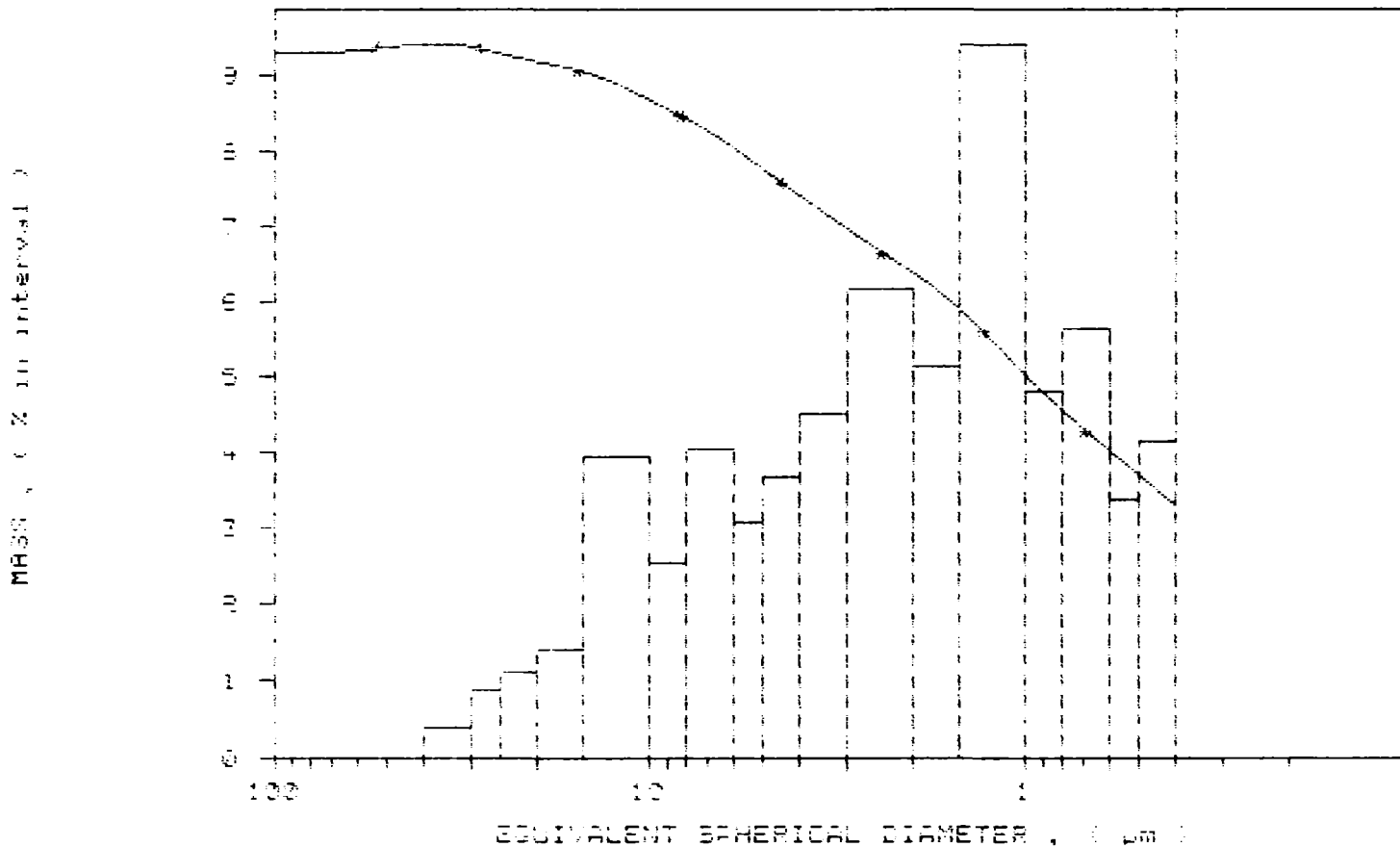
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER  
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /319  
 SAMPLE ID: Hole PJ 88-2 # 17251  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 88 kilocounts/sec

UNIT NUMBER: 1  
 START 12:48:28 11/08/94  
 REPR 13:00:40 11/08/94  
 TOT RUN TIME 0:07:35  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7635 cp  
 RUN TYPE: High Speed

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



SAMPLE DIRECTORY/NUMBER: DATA7 /320  
 SAMPLE ID: Hole PJ 88-2 # 17252  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 86 kilocounts/sec

UNIT NUMBER: 1  
 START 13:08:31 11/08/94  
 REPRT 13:20:43 11/08/94  
 TOT RUN TIME 0:07:40  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7634 cp  
 RUN TYPE: High Speed

STARTING DIAMETER: 100.00  $\mu$ m  
 ENDING DIAMETER: 0.40  $\mu$ m


REYNOLDS NUMBER: 1.49  
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 0.86  $\mu$ m

MODAL DIAMETER: 0.85  $\mu$ m

DIAMETER ( $\mu$ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
100.00	98.5	1.5
80.00	99.3	-0.8
60.00	99.8	-0.5
50.00	99.7	0.0
40.00	99.6	0.2
30.00	99.2	0.4
25.00	99.0	0.2
20.00	98.7	0.3
15.00	98.6	0.1
10.00	98.4	0.2
8.00	98.2	0.2
6.00	98.5	-0.2
5.00	98.7	-0.2
4.00	98.7	-0.0
3.00	98.6	0.1
2.00	94.6	3.9
1.50	89.1	5.5
1.00	67.8	21.3
0.80	40.8	27.0
0.60	15.7	25.1
0.50	10.5	5.2
0.40	8.9	1.6

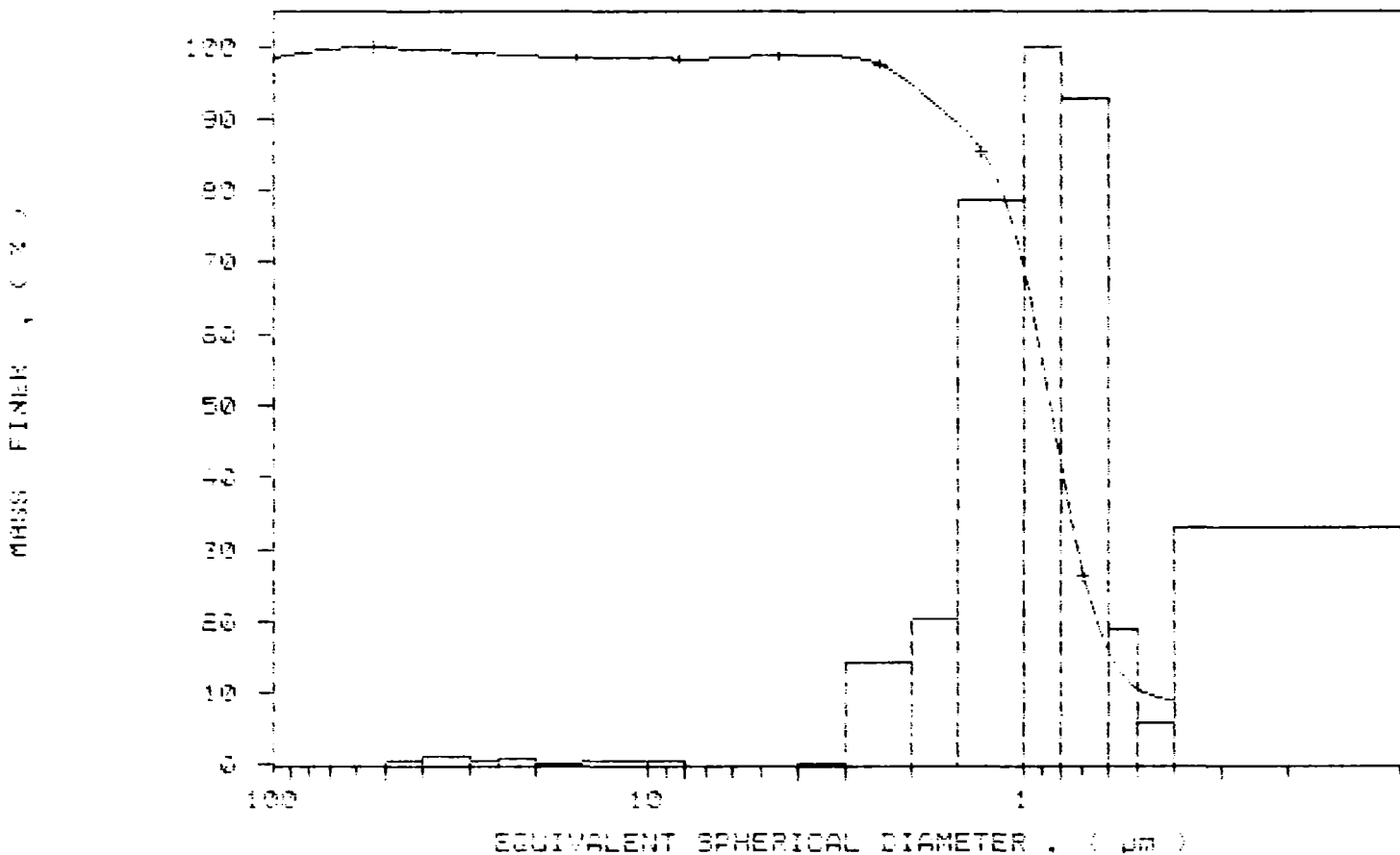


000100

SAMPLE DIRECTORY/NUMBER: DATA7 /320  
SAMPLE ID: Hole PJ 88-2 # 17252  
SUBMITTER: MRC Inc.  
OPERATOR: KM  
SAMPLE TYPE: Clay  
LIQUID TYPE: Water  
ANALYSIS TEMP: 32.3 deg C  
BASELINE/FULL SCALE: 130/ 86 kilocounts/sec

UNIT NUMBER: 1  
START 13:08:31 11/08/94  
REPT 13:20:43 11/08/94  
TOT RUN TIME 0:07:40  
SAM DENS: 2.6000 g/cc  
LIQ DENS: 0.9950 g/cc  
LIQ VISC: 0.7634 cp  
RUN TYPE: High Speed

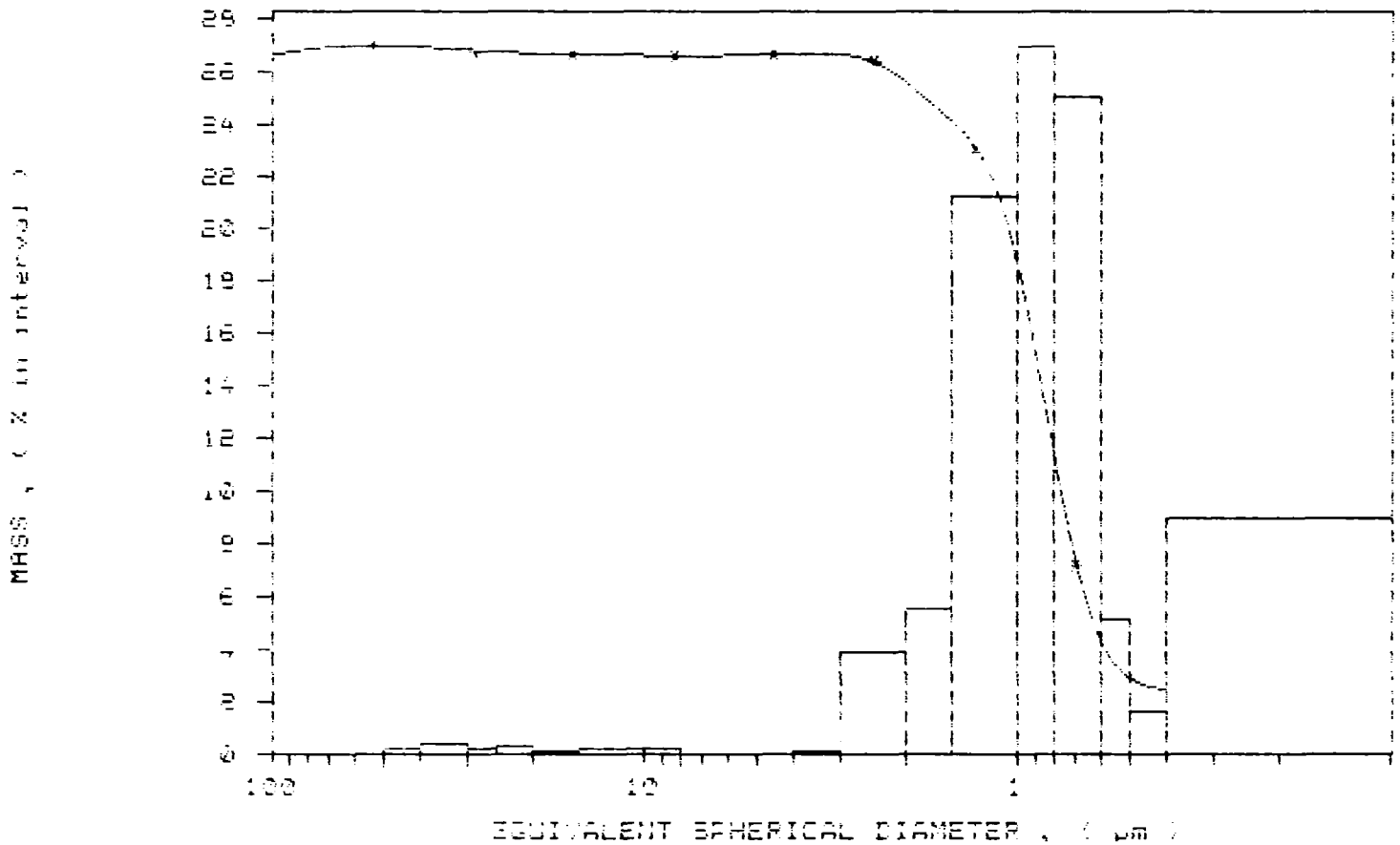
- CUMULATIVE MASS PERCENT FINER VS. DIAMETER  
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /320  
SAMPLE ID: Hole PJ 88-2 # 17252  
SUBMITTER: MRC Inc.  
OPERATOR: KM  
SAMPLE TYPE: Clay  
LIQUID TYPE: Water  
ANALYSIS TEMP: 32.3 deg C  
BASELINE/FULL SCALE: 130/ 86 kilocounts/sec

UNIT NUMBER: 1  
START 13:08:31 11/08/94  
REPT 13:20:43 11/08/94  
TOT RUN TIME 0:07:40  
SAM DENS: 2.6000 g/cc  
LIQ DENS: 0.9950 g/cc  
LIQ VISC: 0.7634 cp  
RUN TYPE: High Speed

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



SAMPLE DIRECTORY/NUMBER: DATA7 /321  
 SAMPLE ID: Hole PJ 88-2 # 17253  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 93 kilocounts/sec

UNIT NUMBER: 1  
 START 15:15:45 11/08/94  
 REPRT 15:23:36 11/08/94  
 TOT RUN TIME 0:07:31  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7636 cp  
 RUN TYPE: High Speed

STARTING DIAMETER: 100.00 um  
 ENDING DIAMETER: 0.40 um

REYNOLDS NUMBER: 1.49  
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.02 um MODAL DIAMETER: 4.46 um

DIAMETER (um)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
100.00	102.2	-2.2
80.00	101.5	0.7
60.00	100.7	0.8
50.00	100.3	0.4
40.00	99.7	0.6
30.00	98.8	0.9
25.00	98.0	0.8
20.00	96.1	1.9
15.00	92.3	3.8
10.00	86.0	6.3
8.00	81.4	4.6
6.00	75.3	6.1
5.00	71.0	4.3
4.00	65.4	5.6
3.00	58.7	6.7
2.00	49.7	9.0
1.50	42.6	7.1
1.00	33.8	8.8
0.80	30.0	3.8
0.60	25.7	4.3
0.50	23.3	2.4
0.40	20.6	2.8



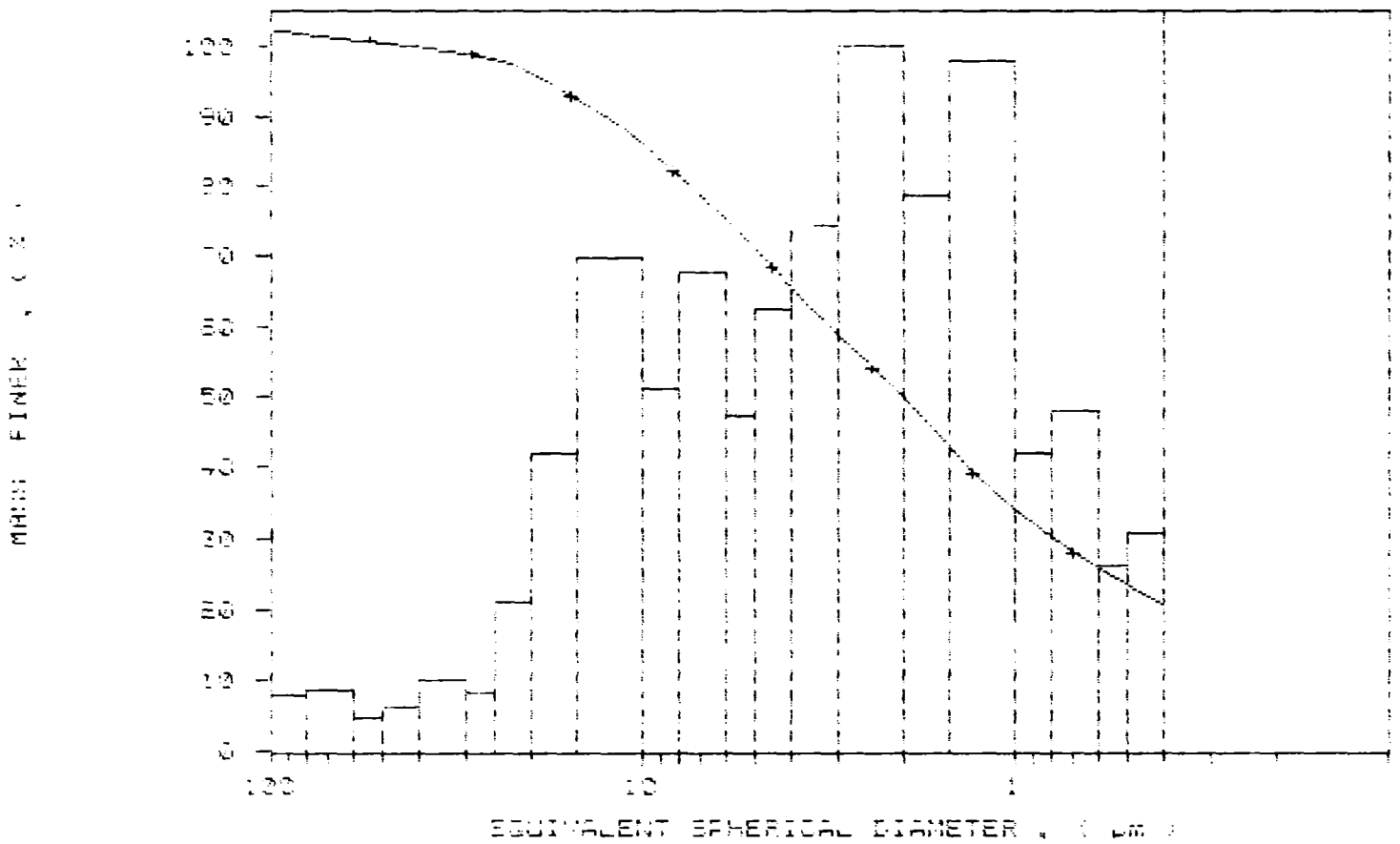
*H. Malmstrom*

000100

SAMPLE DIRECTORY/NUMBER: DATA7 /321  
 SAMPLE ID: Hole PJ 88-2 # 17253  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 93 kilocounts/sec

UNIT NUMBER: 1  
 START 15:15:45 11/08/94  
 REPT 15:23:36 11/08/94  
 TOT RUN TIME 0:07:31  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7636 cp  
 RUN TYPE: High Speed

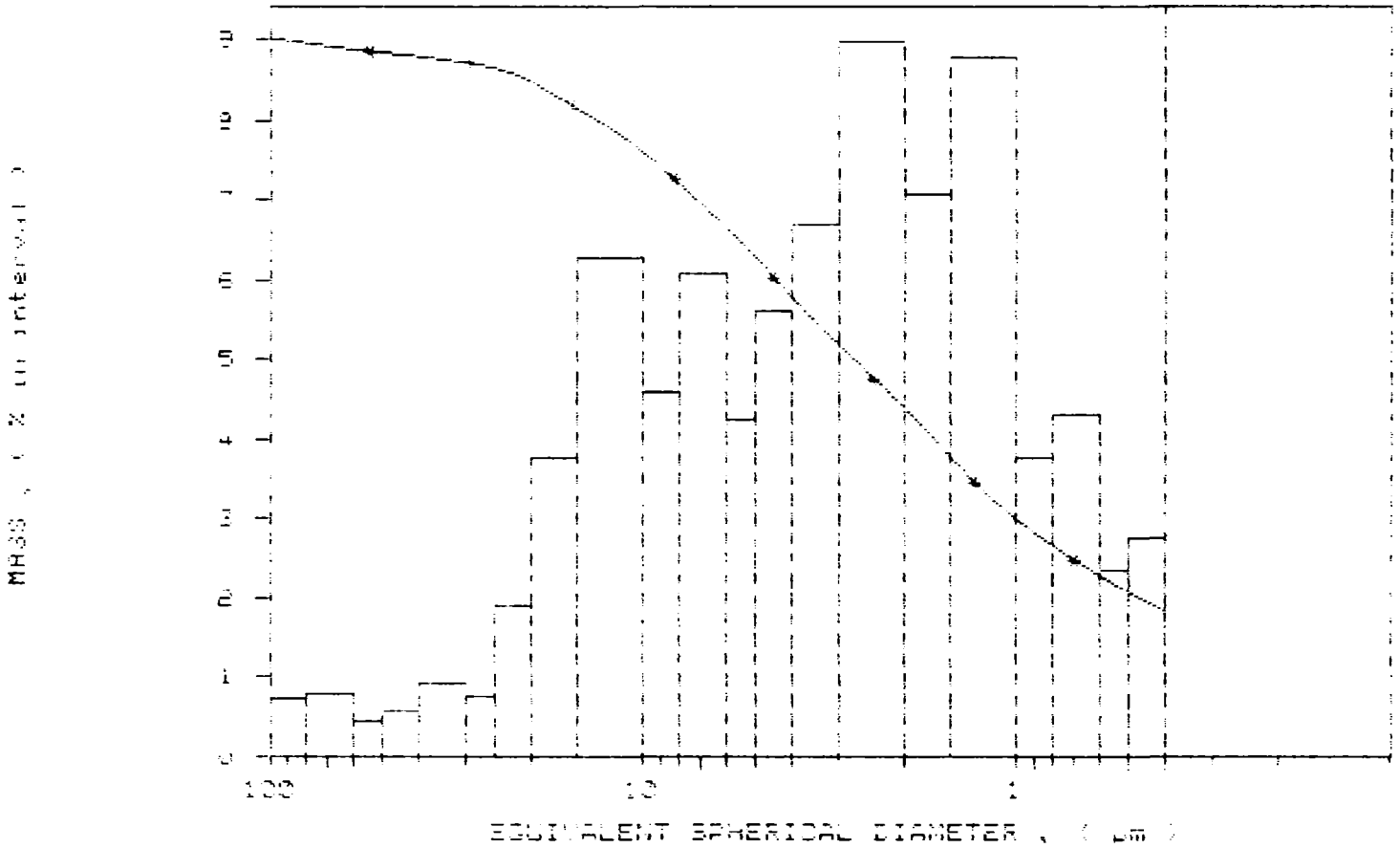
- CUMULATIVE MASS PERCENT FINER VS. DIAMETER  
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /321  
 SAMPLE ID: Hole PJ 88-2 # 17253  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 93 kilocounts/sec

UNIT NUMBER: 1  
 START 15:15:45 11/08/94  
 REPT 15:23:36 11/08/94  
 TOT RUN TIME 0:07:31  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7636 cp  
 RUN TYPE: High Speed

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





SAMPLE DIRECTORY/NUMBER: DATA7 /322  
 SAMPLE ID: Hole PJ 88-2 # 17254  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 102 kilocounts/sec

UNIT NUMBER: 1  
 START 15:35:04 11/08/94  
 REPR 15:47:08 11/08/94  
 TOT RUN TIME 0:07:29  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7635 cp  
 RUN TYPE: High Speed

STARTING DIAMETER: 100.00 um  
 ENDING DIAMETER: 0.40 um

REYNOLDS NUMBER: 1.49  
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.53 um MODAL DIAMETER: 2.10 um

DIAMETER (um)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
100.00	99.2	0.8
80.00	99.6	-0.3
60.00	99.7	-0.1
50.00	99.4	0.3
40.00	98.7	0.7
30.00	98.2	0.5
25.00	97.5	0.7
20.00	95.2	2.3
15.00	91.4	3.8
10.00	82.7	8.7
8.00	77.5	5.2
6.00	70.3	7.2
5.00	65.7	4.6
4.00	60.5	5.3
3.00	54.1	6.4
2.00	43.2	10.8
1.50	36.0	7.2
1.00	28.8	7.3
0.80	25.8	2.9
0.60	23.0	2.8
0.50	21.4	1.6
0.40	19.7	1.8

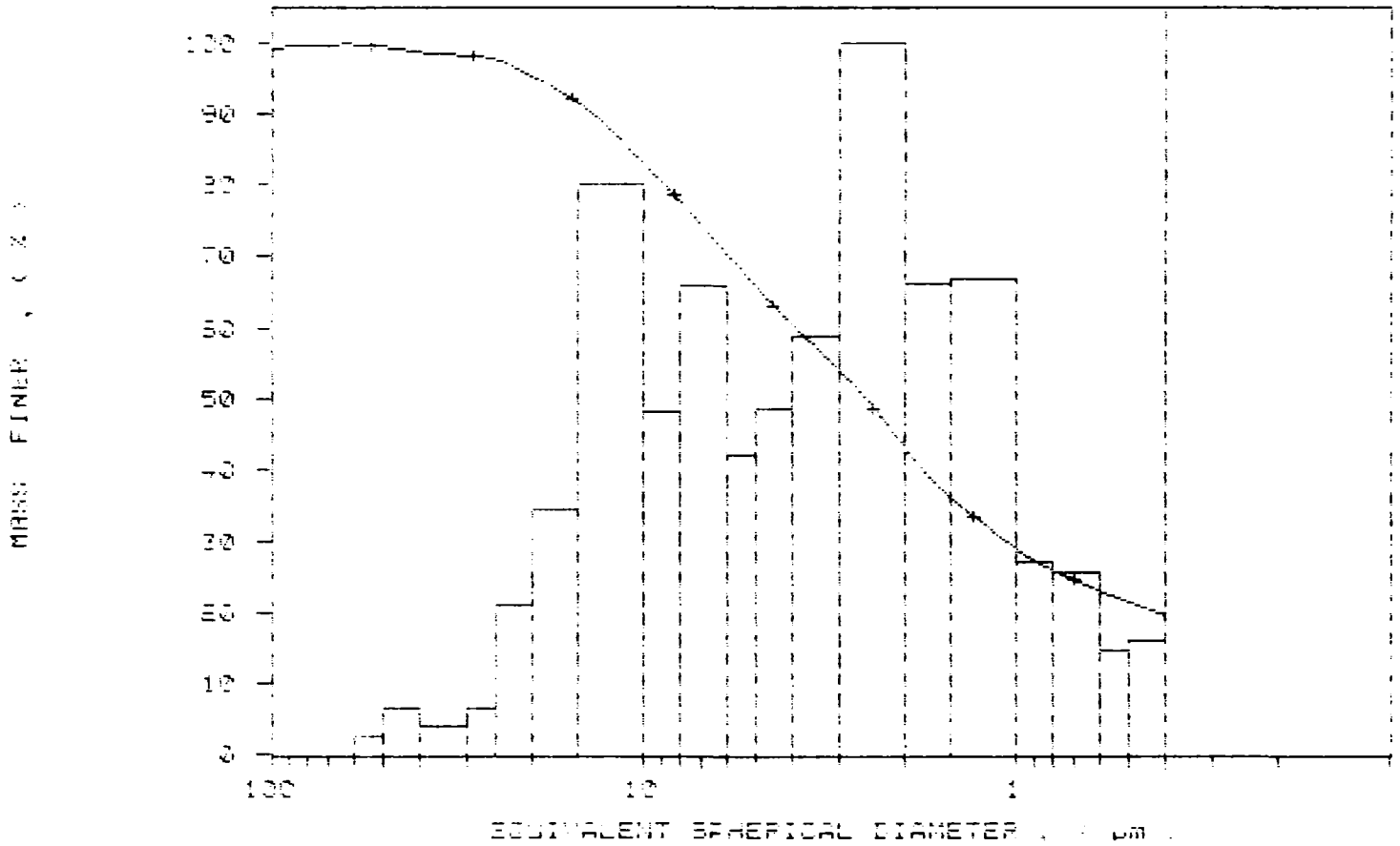
*L. Malmstrom*

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SAMPLE DIRECTORY/NUMBER: DATA7 /322  
 SAMPLE ID: Hole PJ 88-2 # 17254  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 102 kilocounts/sec

UNIT NUMBER: 1  
 START 15:35:04 11/08/94  
 REPT 15:47:08 11/08/94  
 TOT RUN TIME 0:07:29  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7635 cp  
 RUN TYPE: High Speed

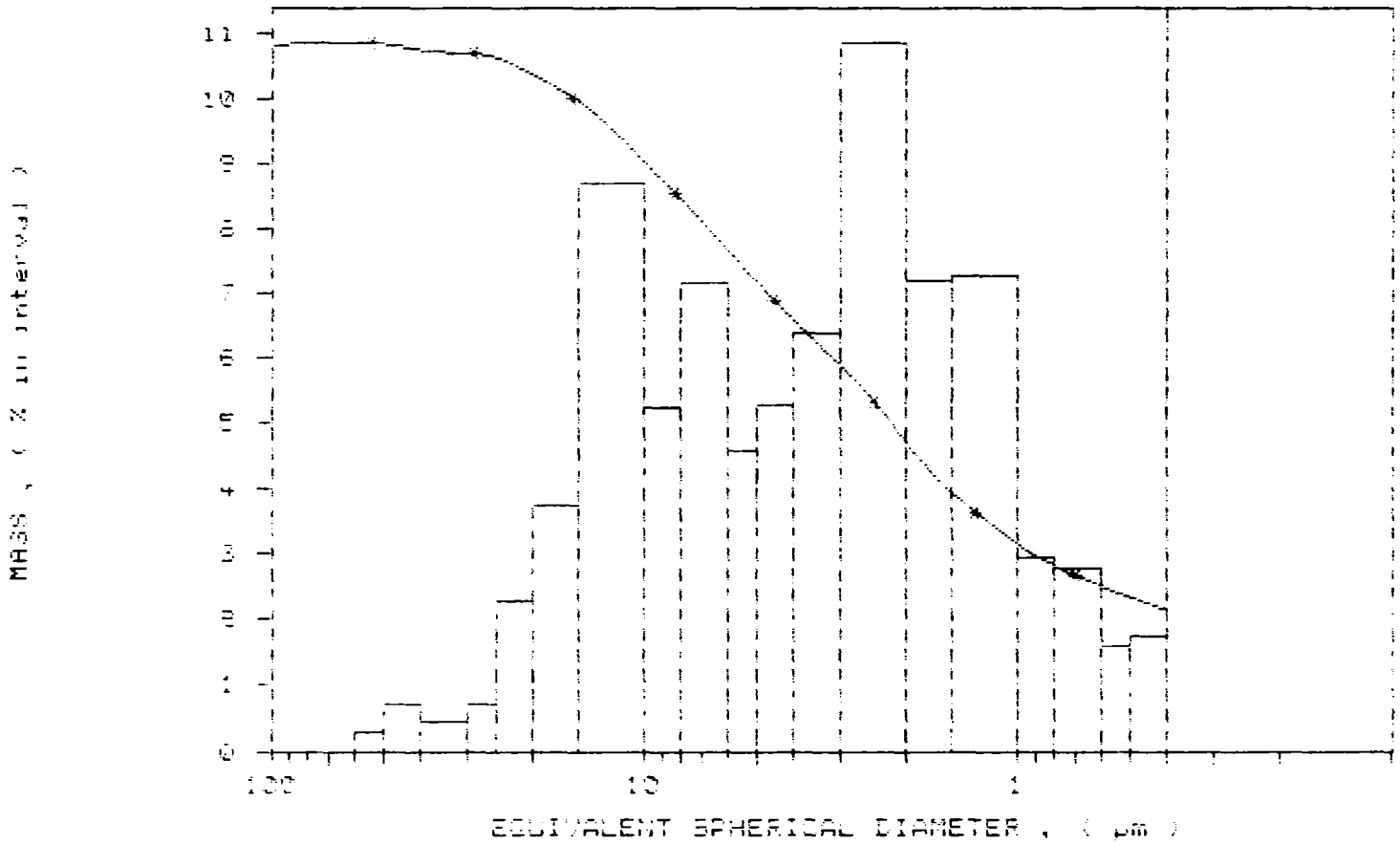
- CUMULATIVE MASS PERCENT FINER VS. DIAMETER  
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /322  
SAMPLE ID: Hole PJ 88-2 # 17254  
SUBMITTER: MRC Inc.  
OPERATOR: KM  
SAMPLE TYPE: Clay  
LIQUID TYPE: Water  
ANALYSIS TEMP: 32.3 deg C  
BASELINE/FULL SCALE: 130/ 102 kilocounts/sec

UNIT NUMBER: 1  
START 15:35:04 11/08/94  
REPT 15:47:08 11/08/94  
TOT RUN TIME 0:07:29  
SAM DENS: 2.6000 g/cc  
LIQ DENS: 0.9950 g/cc  
LIQ VISC: 0.7635 cp  
RUN TYPE: High Speed

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



SAMPLE DIRECTORY/NUMBER: DATA7 /323  
 SAMPLE ID: Hole PJ 88-2 # 17255  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 94 kilocounts/sec

UNIT NUMBER: 1  
 START 15:54:51 11/08/94  
 REPR 16:07:03 11/08/94  
 TOT RUN TIME 0:07:39  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7633 cp  
 RUN TYPE: High Speed

STARTING DIAMETER: 100.00  $\mu$ m  
 ENDING DIAMETER: 0.40  $\mu$ m


REYNOLDS NUMBER: 1.49  
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 3.20  $\mu$ m

MODAL DIAMETER: 13.42  $\mu$ m

DIAMETER ( $\mu$ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
100.00	98.2	1.8
80.00	98.7	-0.5
60.00	98.8	-0.1
50.00	98.6	0.2
40.00	98.3	0.3
30.00	96.3	2.0
25.00	93.9	2.4
20.00	90.1	3.7
15.00	84.0	6.1
10.00	74.7	9.3
8.00	69.9	4.8
6.00	63.5	6.4
5.00	59.5	4.0
4.00	54.6	4.9
3.00	48.7	5.9
2.00	41.1	7.6
1.50	36.2	5.0
1.00	29.0	7.1
0.80	25.7	3.4
0.60	22.4	3.3
0.50	20.7	1.7
0.40	18.5	2.1

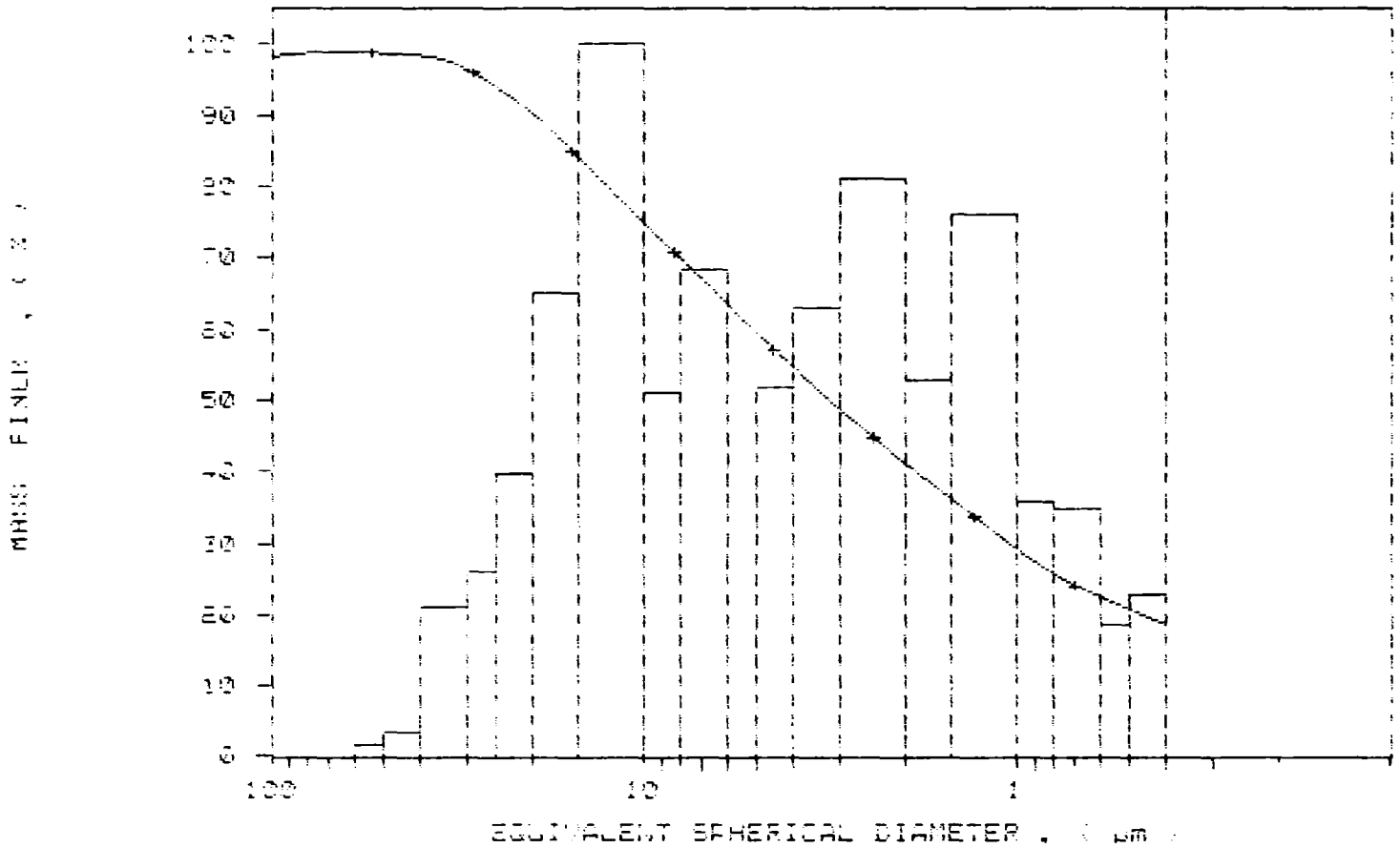


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SAMPLE DIRECTORY/NUMBER: DATA7 /323  
 SAMPLE ID: Hole PJ 88-2 # 17255  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 94 kilocounts/sec

UNIT NUMBER: 1  
 START 15:54:51 11/08/94  
 REPT 16:07:03 11/08/94  
 TOT RUN TIME 0:07:39  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7633 cp  
 RUN TYPE: High Speed

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



SAMPLE DIRECTORY/NUMBER: DATA7 /324  
 SAMPLE ID: Hole PJ 88-2 # 17256  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 101 kilocounts/sec

UNIT NUMBER: 1  
 START 12:05:06 11/09/94  
 REPT 12:17:05 11/09/94  
 TOT RUN TIME 0:07:28  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7633 cp  
 RUN TYPE: High Speed

STARTING DIAMETER: 100.00  $\mu$ m  
 ENDING DIAMETER: 0.40  $\mu$ m

REYNOLDS NUMBER: 1.49  
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.93  $\mu$ m MODAL DIAMETER: 2.08  $\mu$ m

DIAMETER ( $\mu$ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
100.00	98.2	1.7
80.00	98.3	-0.0
60.00	98.2	0.1
50.00	98.1	0.1
40.00	97.8	0.3
30.00	97.0	0.8
25.00	96.1	0.9
20.00	94.3	1.9
15.00	90.3	4.0
10.00	83.7	6.5
8.00	80.0	3.8
6.00	74.1	5.9
5.00	70.5	3.6
4.00	66.4	4.1
3.00	60.9	5.5
2.00	50.9	10.0
1.50	43.8	7.1
1.00	36.3	7.5
0.80	32.5	3.8
0.60	28.5	3.9
0.50	26.2	2.4
0.40	23.5	2.7

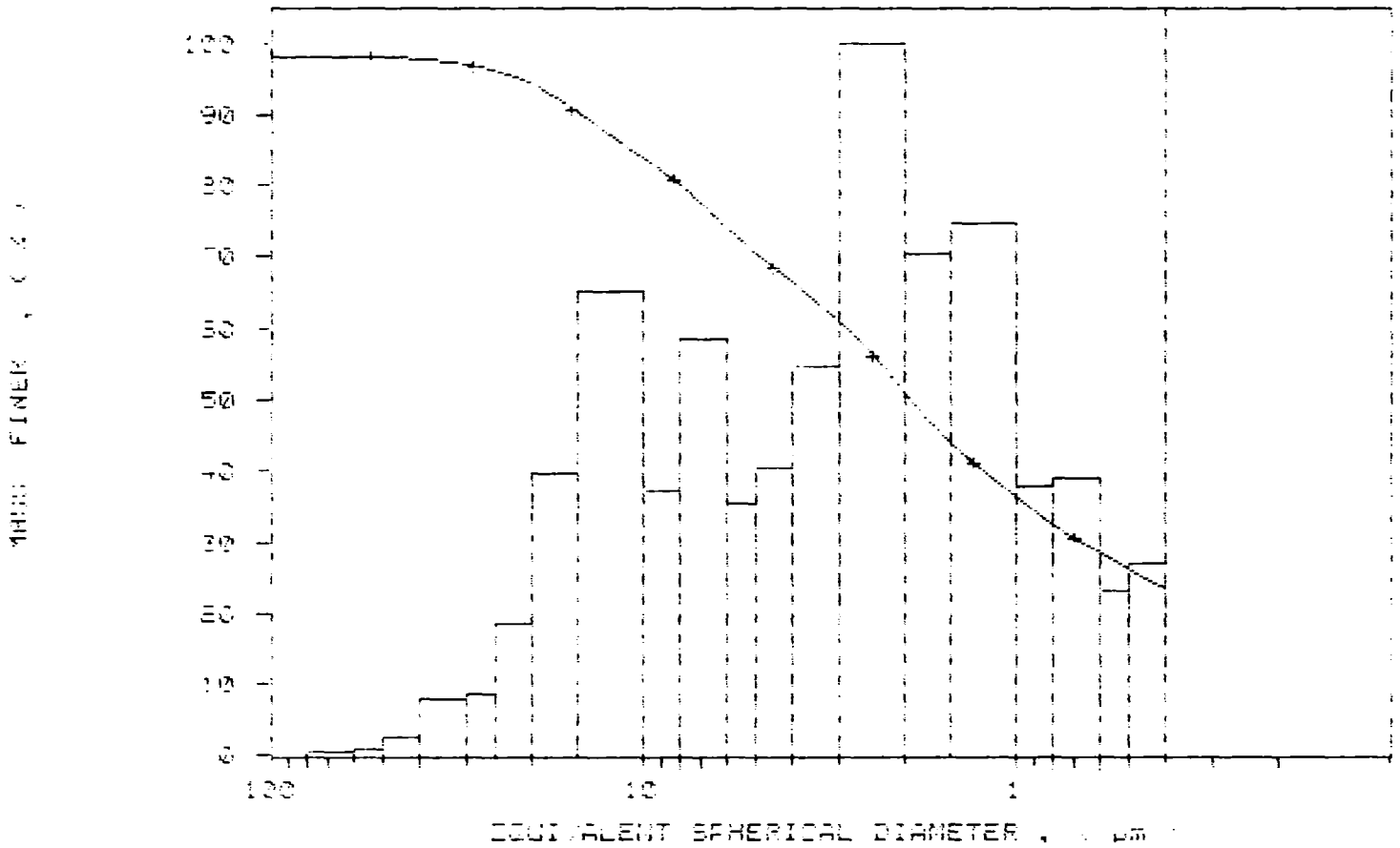
*L. Malmstrom*

000100

SAMPLE DIRECTORY/NUMBER: DATA7 /324  
 SAMPLE ID: Hole PJ 88-2 # 17256  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 dea C  
 BASELINE/FULL SCALE: 130/ 101 kilocounts/sec

UNIT NUMBER: 1  
 START 12:05:06 11/09/94  
 REPRT 12:17:05 11/09/94  
 TOT RUN TIME 0:07:28  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7633 cp  
 RUN TYPE: High Speed

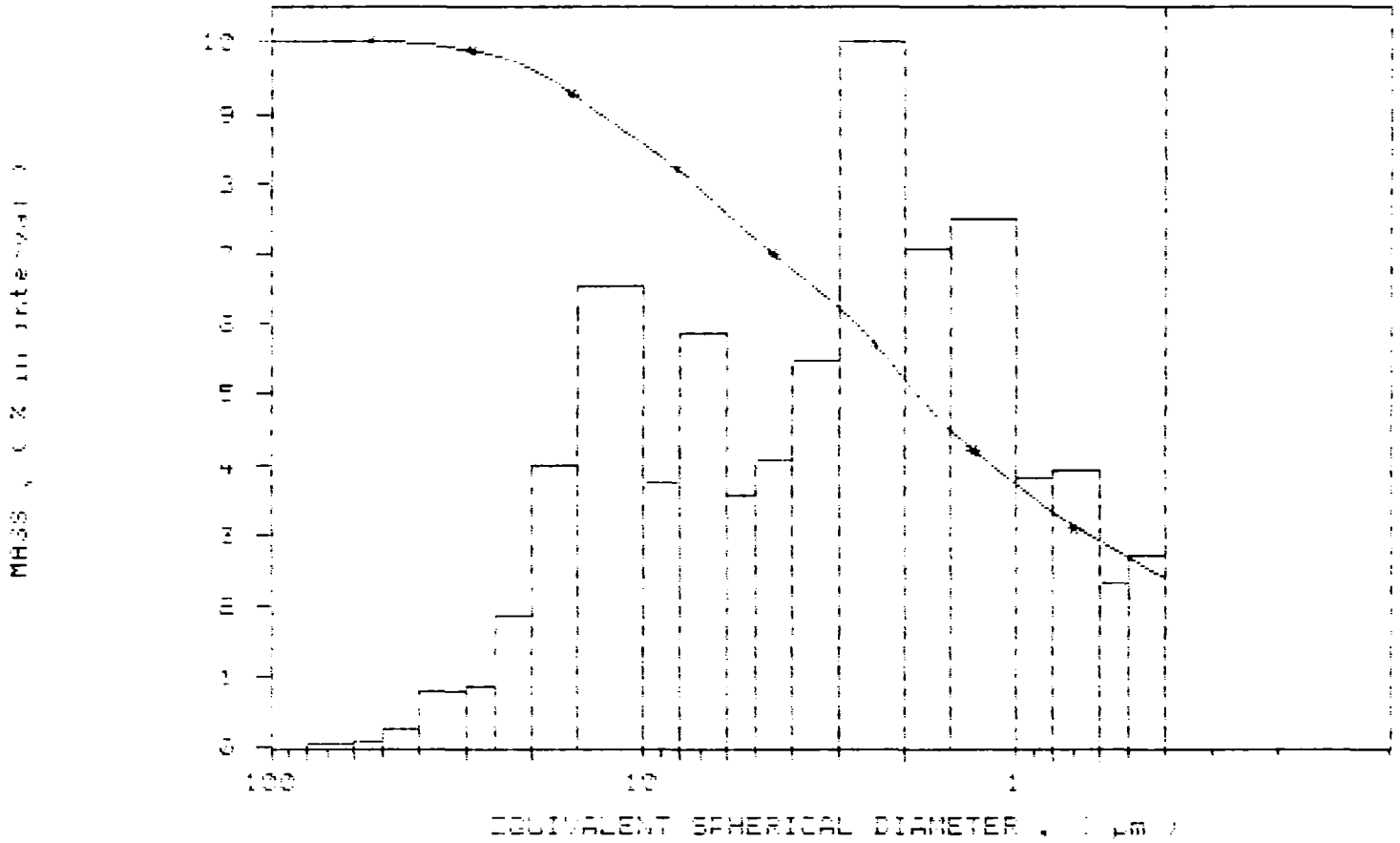
- CUMULATIVE MASS PERCENT FINER VS. DIAMETER  
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /324  
 SAMPLE ID: Hole PJ 88-2 # 17256  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 101 kilocounts/sec

UNIT NUMBER: 1  
 START 12:05:06 11/09/94  
 REPT 12:17:05 11/09/94  
 TOT RUN TIME 0:07:28  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7633 cp  
 RUN TYPE: High Speed

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





SAMPLE DIRECTORY/NUMBER: DATA7 /325  
 SAMPLE ID: Hole PJ 88-2 # 17257  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 89 kilocounts/sec

UNIT NUMBER: 1  
 START 12:39:17 11/09/94  
 REPT 12:51:33 11/09/94  
 TOT RUN TIME 0:07:43  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7631 cp  
 RUN TYPE: High Speed

STARTING DIAMETER: 100.00 um  
 ENDING DIAMETER: 0.40 um

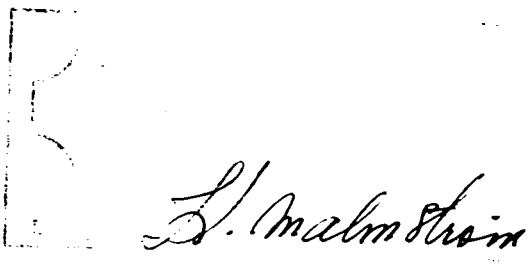
REYNOLDS NUMBER: 1.49  
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.46 um

MODAL DIAMETER: 7.01 um

DIAMETER (um)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
100.00	99.5	0.5
80.00	99.3	0.2
60.00	99.1	0.2
50.00	99.0	0.1
40.00	98.8	0.2
30.00	97.9	0.9
25.00	96.6	1.3
20.00	93.8	2.7
15.00	89.0	4.8
10.00	81.1	7.9
8.00	76.3	4.8
6.00	69.7	6.6
5.00	65.5	4.2
4.00	60.5	5.1
3.00	54.1	6.4
2.00	46.0	8.0
1.50	40.7	5.4
1.00	33.3	7.4
0.80	29.2	4.1
0.60	24.5	4.6
0.50	22.1	2.4
0.40	18.9	3.2

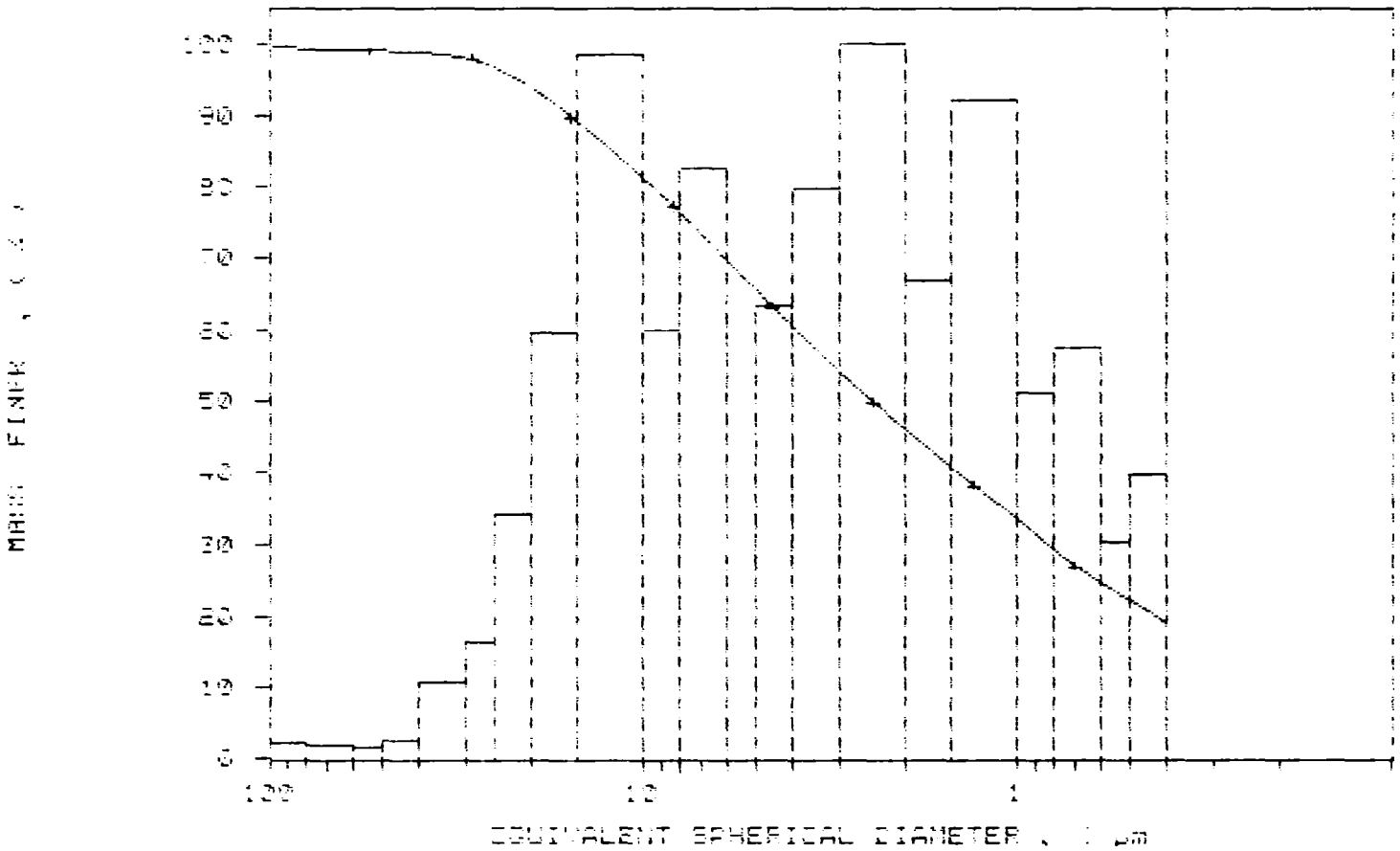


000100

SAMPLE DIRECTORY/NUMBER: DATA7 /325  
 SAMPLE ID: Hole PJ 88-2 # 17257  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 89 kilocounts/sec

UNIT NUMBER: 1  
 START 12:39:17 11/09/94  
 REPT 12:51:33 11/09/94  
 TOT RUN TIME 0:07:43  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7631 cp  
 RUN TYPE: High Speed

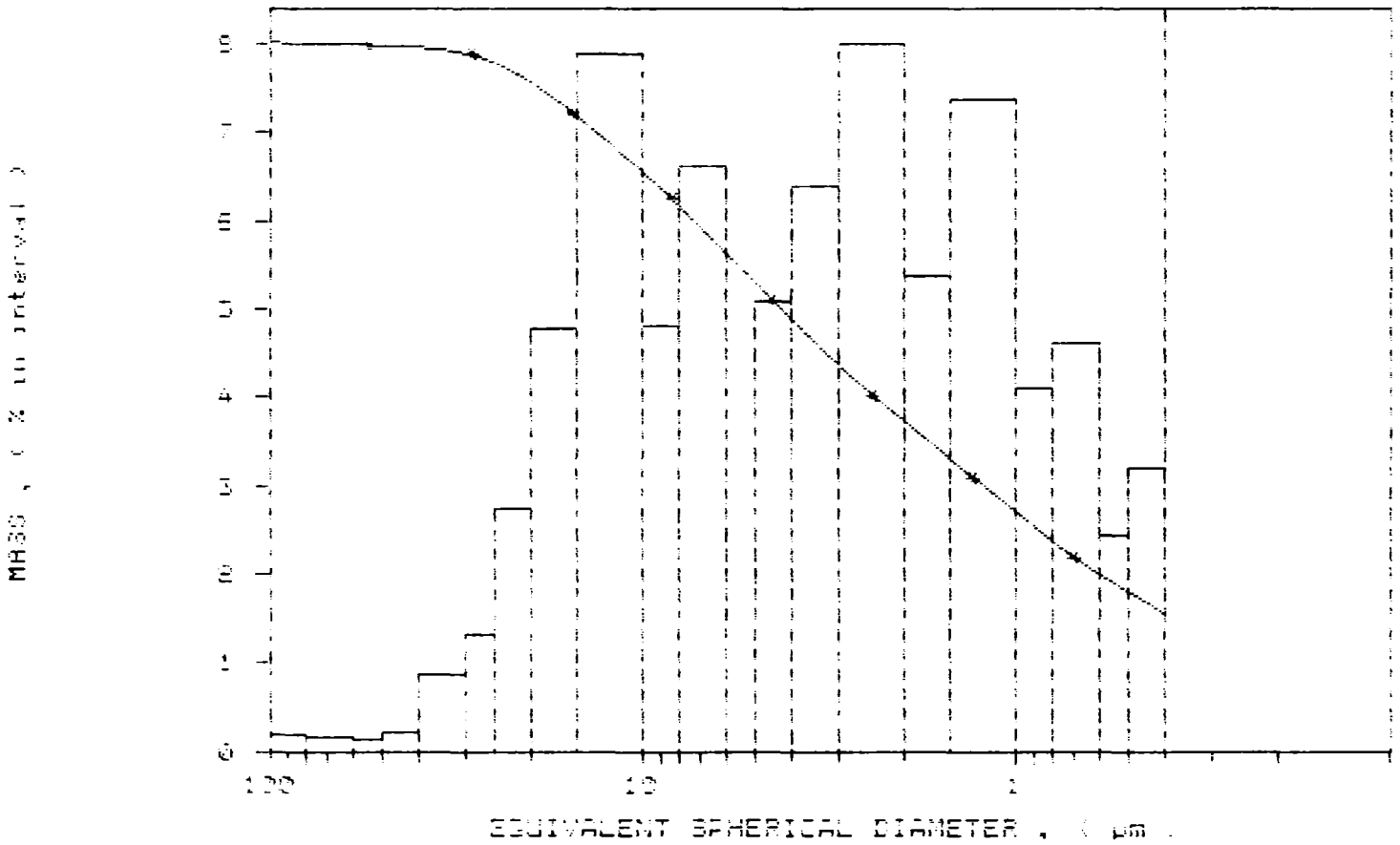
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER  
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /325  
 SAMPLE ID: Hole PJ 88-2 # 17257  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 89 kilocounts/sec

UNIT NUMBER: 1  
 START 12:39:17 11/09/94  
 REPT 12:51:33 11/09/94  
 TOT RUN TIME 0:07:43  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7631 cp  
 RUN TYPE: High Speed

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



SAMPLE DIRECTORY/NUMBER: DATA7 /326  
 SAMPLE ID: Hole PJ 88-2 # 17258  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 84 kilocounts/sec

UNIT NUMBER: 1  
 START 13:01:50 11/09/94  
 REPT 13:14:04 11/09/94  
 TOT RUN TIME 0:07:41  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7631 cp  
 RUN TYPE: High Speed

STARTING DIAMETER: 100.00 um  
 ENDING DIAMETER: 0.40 um

REYNOLDS NUMBER: 1.49  
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.98 um MODAL DIAMETER: 4.86 um

DIAMETER (um)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
100.00	100.0	0.0
80.00	99.5	0.5
60.00	99.4	0.1
50.00	99.3	0.1
40.00	98.8	0.5
30.00	97.5	1.3
25.00	96.4	1.0
20.00	94.7	1.7
15.00	90.9	3.9
10.00	83.0	7.9
8.00	78.6	4.4
6.00	72.7	5.9
5.00	68.5	4.2
4.00	63.4	5.1
3.00	57.9	5.5
2.00	50.2	7.6
1.50	45.1	5.1
1.00	39.5	5.6
0.80	36.7	2.8
0.60	32.7	4.0
0.50	29.7	3.0
0.40	25.9	3.8

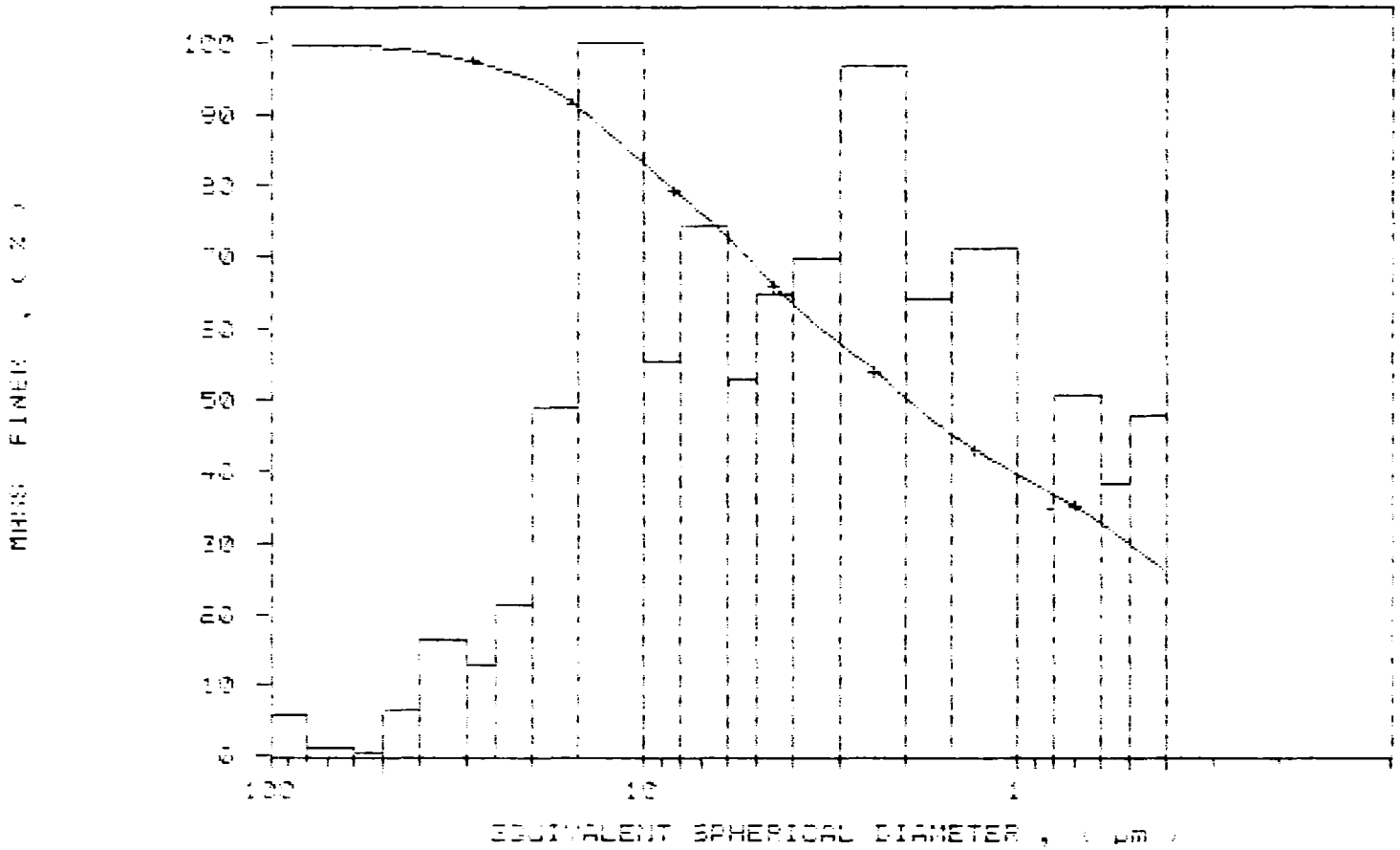
*A. Malmstrom*

000100

SAMPLE DIRECTORY/NUMBER: DATA7 /326  
 SAMPLE ID: Hole PJ 88-2 # 17258  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 84 kilocounts/sec

UNIT NUMBER: 1  
 START 13:01:50 11/09/94  
 REPT 13:14:04 11/09/94  
 TOT RUN TIME 0:07:41  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7631 cp  
 RUN TYPE: High Speed

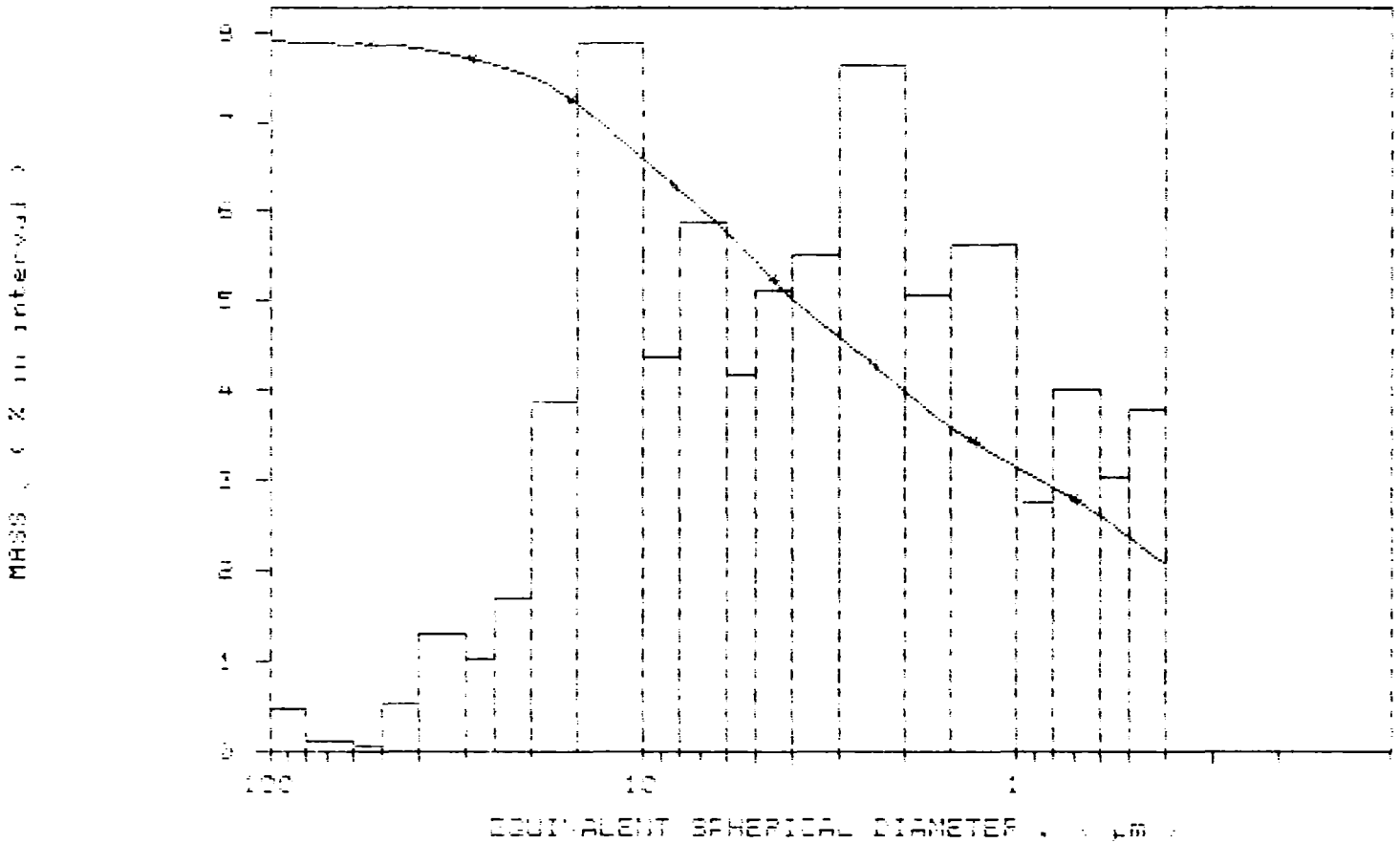
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER  
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /326  
 SAMPLE ID: Hole PJ 88-2 # 17258  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 84 kilocounts/sec

UNIT NUMBER: 1  
 START 13:01:50 11/09/94  
 REPT 13:14:04 11/09/94  
 TOT RUN TIME 0:07:41  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7631 cp  
 RUN TYPE: High Speed

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



SAMPLE DIRECTORY/NUMBER: DATA7 /327  
 SAMPLE ID: Hole PJ 88-2 # 17259  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 87 kilocounts/sec

UNIT NUMBER: 1  
 START 14:12:54 11/09/94  
 REPR 14:20:53 11/09/94  
 TOT RUN TIME 0:07:36  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7633 cp  
 RUN TYPE: High Speed

STARTING DIAMETER: 100.00 um  
 ENDING DIAMETER: 0.40 um

REYNOLDS NUMBER: 1.49  
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.52 um

MODAL DIAMETER: 6.33 um

DIAMETER (um)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
100.00	98.3	1.7
80.00	98.6	-0.4
60.00	99.0	-0.4
50.00	99.1	-0.1
40.00	99.0	0.0
30.00	98.7	0.3
25.00	98.0	0.7
20.00	96.4	1.6
15.00	93.0	3.4
10.00	85.7	7.3
8.00	80.9	4.8
6.00	74.1	6.8
5.00	69.9	4.2
4.00	65.2	4.8
3.00	59.6	5.6
2.00	53.3	6.3
1.50	49.8	3.4
1.00	44.4	5.4
0.80	41.4	3.0
0.60	36.9	4.5
0.50	33.6	3.3
0.40	29.3	4.4

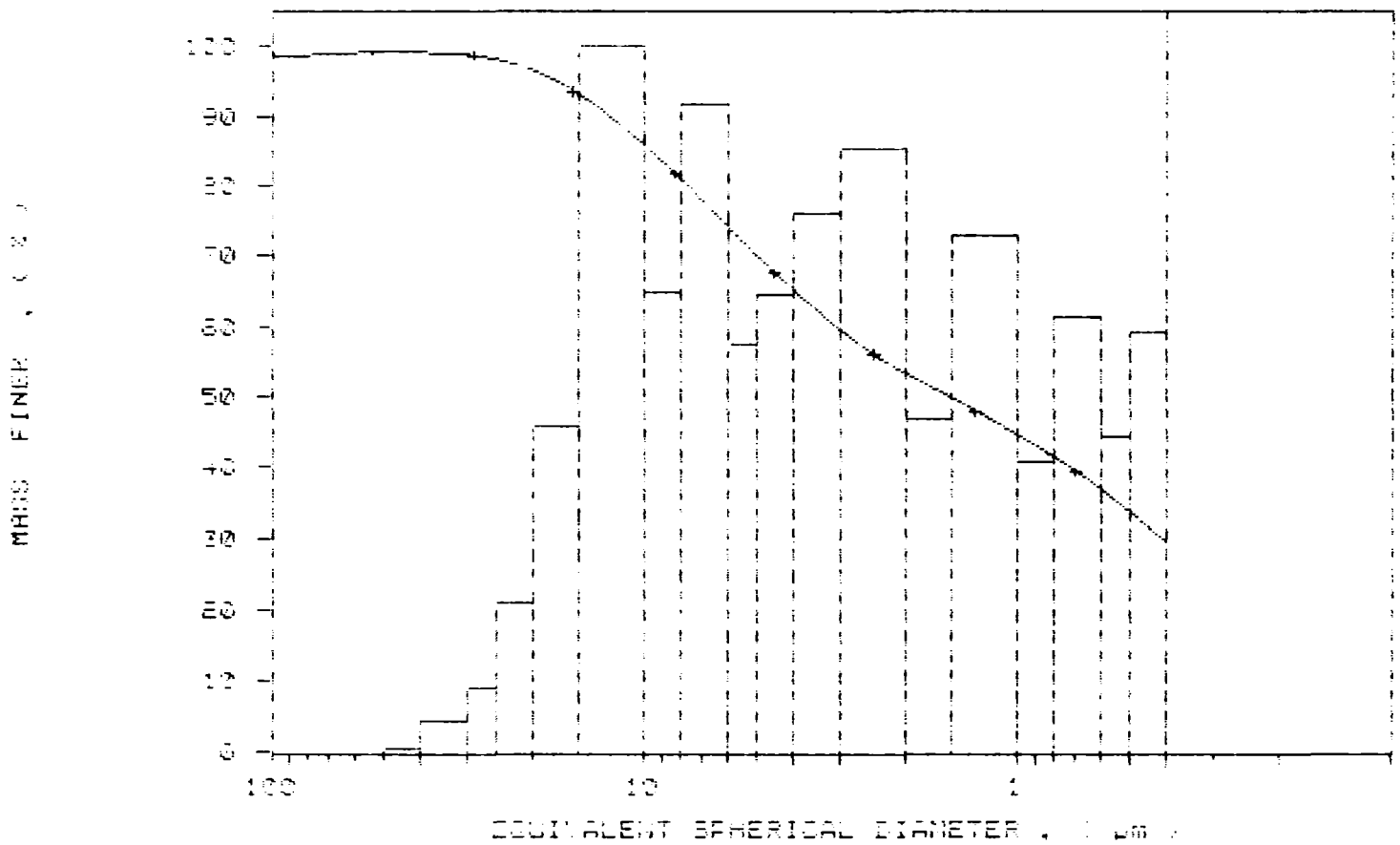
*A. Malmstrom*

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SAMPLE DIRECTORY/NUMBER: DATA7 /327  
 SAMPLE ID: Hole PJ 88-2 # 17259  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 87 kilocounts/sec

UNIT NUMBER: 1  
 START 14:12:54 11/09/94  
 REPR 14:20:53 11/09/94  
 TOT RUN TIME 0:07:36  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7633 cp  
 RUN TYPE: High Speed

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

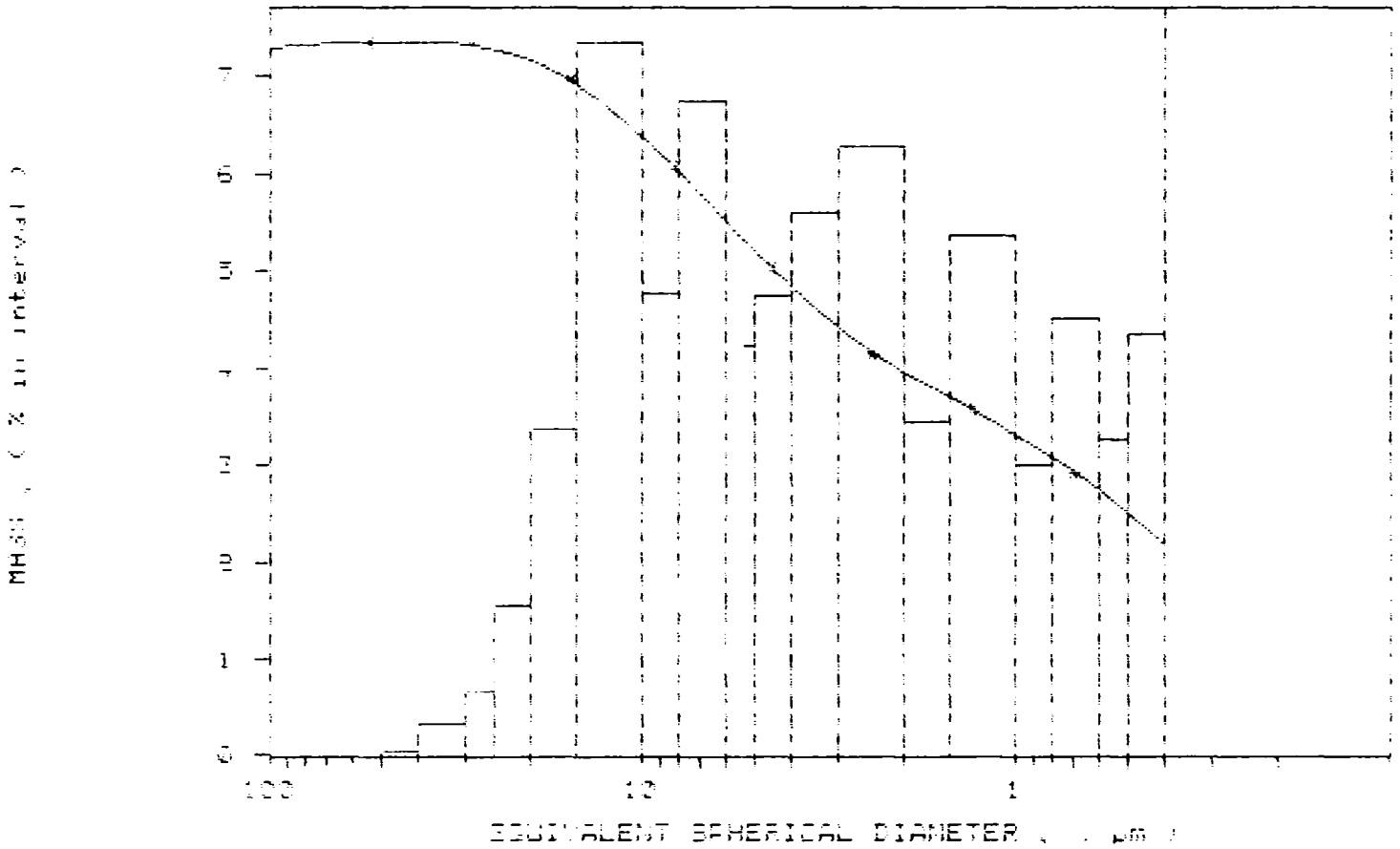




SAMPLE DIRECTORY/NUMBER: DATA7 /327  
 SAMPLE ID: Hole PJ 88-2 # 17259  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 87 kilocounts/sec

UNIT NUMBER: 1  
 START 14:12:54 11/09/94  
 REPT 14:20:53 11/09/94  
 TOT RUN TIME 0:07:36  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7633 cp  
 RUN TYPE: High Speed

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



SAMPLE DIRECTORY/NUMBER: DATA7 /328  
 SAMPLE ID: Hole PJ 88-2 # 17260  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 91 kilocounts/sec

UNIT NUMBER: 1  
 START 14:59:10 11/09/94  
 REPT 15:11:18 11/09/94  
 TOT RUN TIME 0:07:34  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7633 cp  
 RUN TYPE: High Speed

STARTING DIAMETER: 100.00  $\mu$ m  
 ENDING DIAMETER: 0.40  $\mu$ m

REYNOLDS NUMBER: 1.49  
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.92  $\mu$ m MODAL DIAMETER: 6.13  $\mu$ m

DIAMETER ( $\mu$ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
100.00	98.5	1.5
80.00	99.2	-0.7
60.00	99.6	-0.5
50.00	99.6	0.1
40.00	99.1	0.5
30.00	97.4	1.7
25.00	96.0	1.4
20.00	93.5	2.5
15.00	88.3	5.3
10.00	80.6	7.7
8.00	76.2	4.4
6.00	69.9	6.3
5.00	65.9	4.0
4.00	61.4	4.5
3.00	56.0	5.4
2.00	50.5	5.5
1.50	46.9	3.6
1.00	41.4	5.5
0.80	38.6	2.8
0.60	34.6	4.1
0.50	31.3	3.3
0.40	27.0	4.3

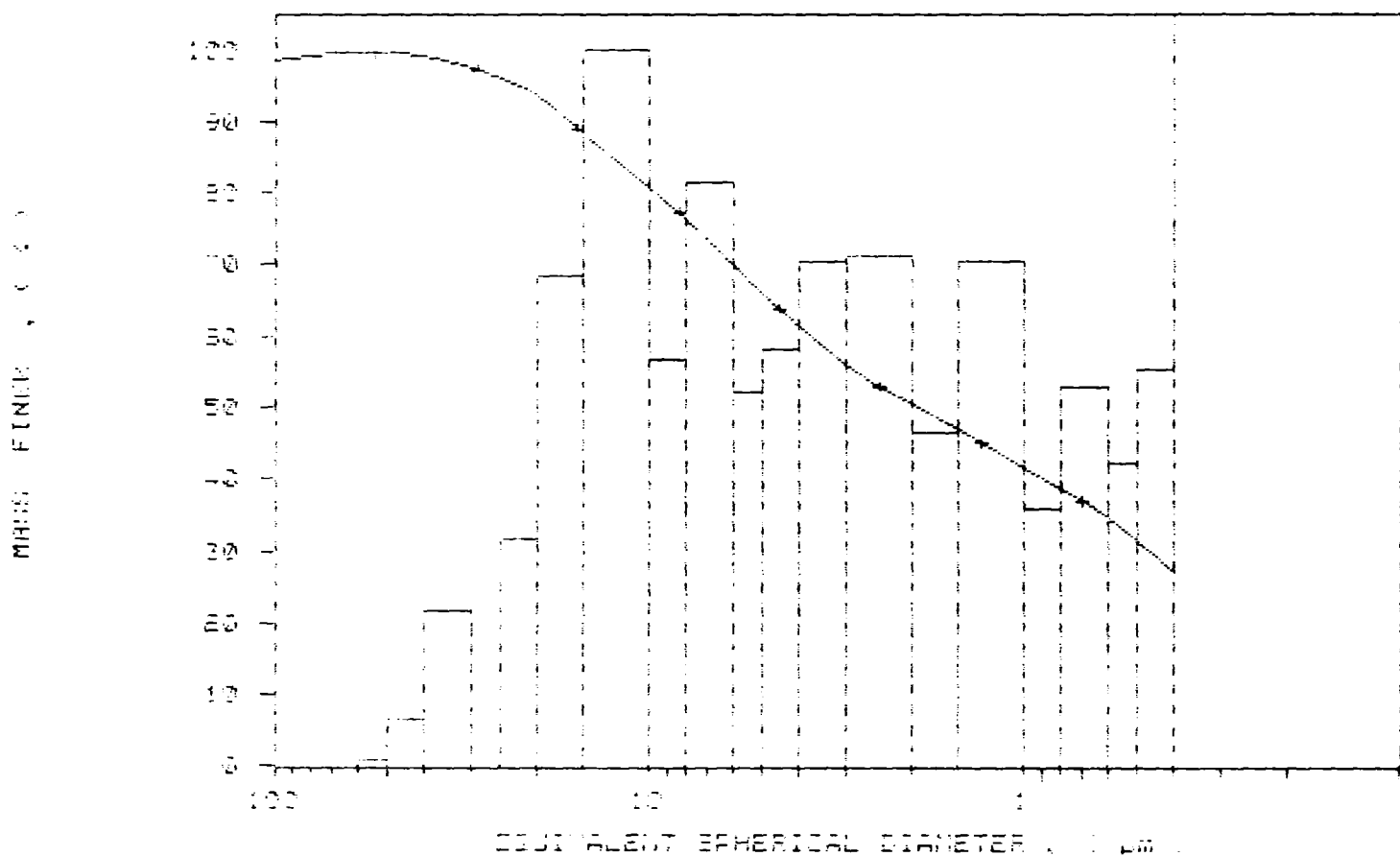
*A. Halmstrom*

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SAMPLE DIRECTORY/NUMBER: DATA7 /328  
SAMPLE ID: Hole PJ 88-2 # 17260  
SUBMITTER: MRC Inc.  
OPERATOR: KM  
SAMPLE TYPE: Clay  
LIQUID TYPE: Water  
ANALYSIS TEMP: 32.3 deg C  
BASELINE/FULL SCALE: 130/ 91 kilocounts/sec

UNIT NUMBER: 1  
START 14:59:10 11/09/94  
REPRT 15:11:18 11/09/94  
TOT RUN TIME 0:07:34  
SAM DENS: 2.6000 g/cc  
LIQ DENS: 0.9950 g/cc  
LIQ VISC: 0.7633 cp  
RUN TYPE: High Speed

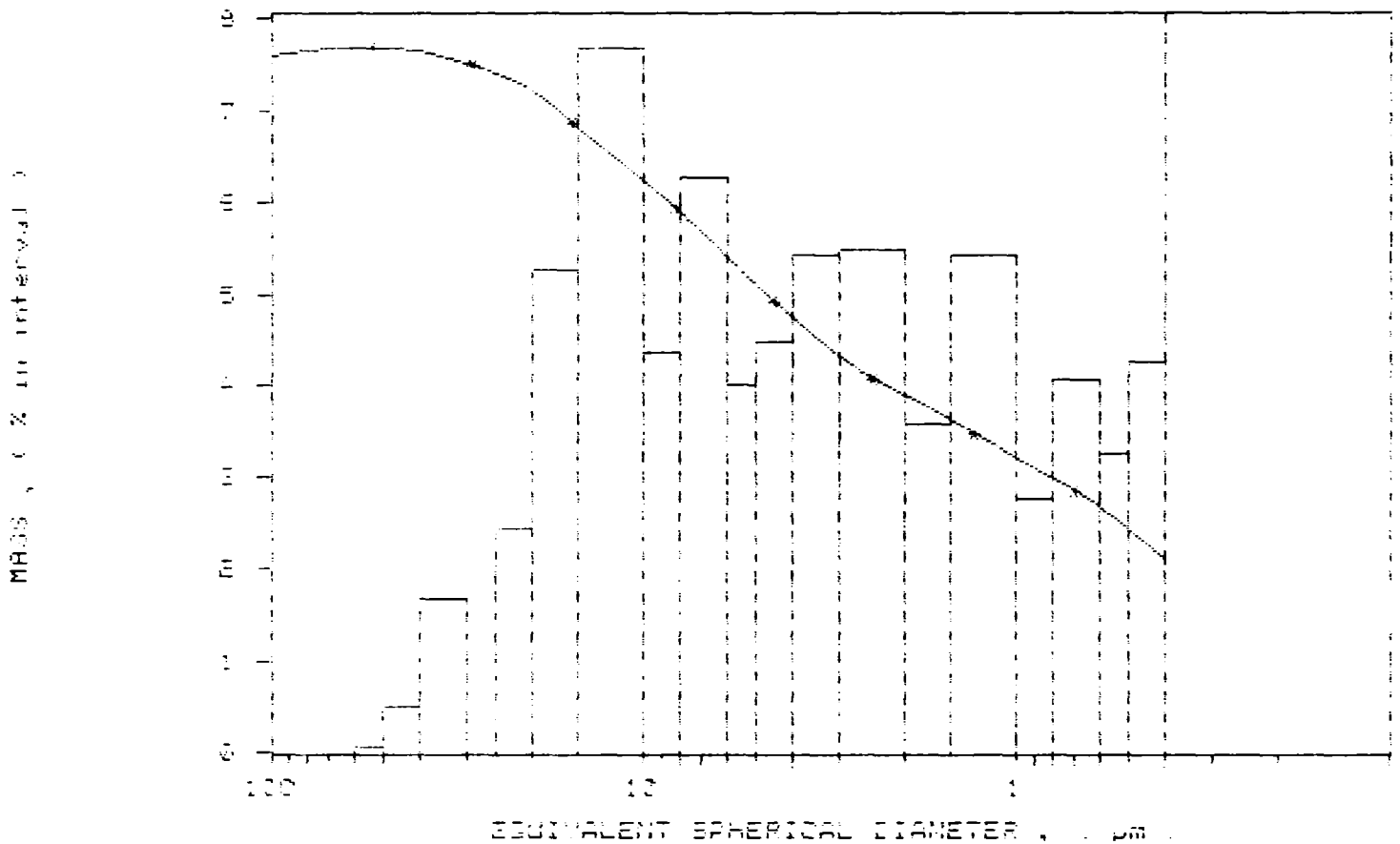
CUMULATIVE MASS PERCENT FINER VS. DIAMETER  
MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /328  
 SAMPLE ID: Hole PJ 88-2 # 17260  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 91 kilocounts/sec

UNIT NUMBER: 1  
 START 14:59:10 11/09/94  
 REPT 15:11:18 11/09/94  
 TOT RUN TIME 0:07:34  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7633 cp  
 RUN TYPE: High Speed

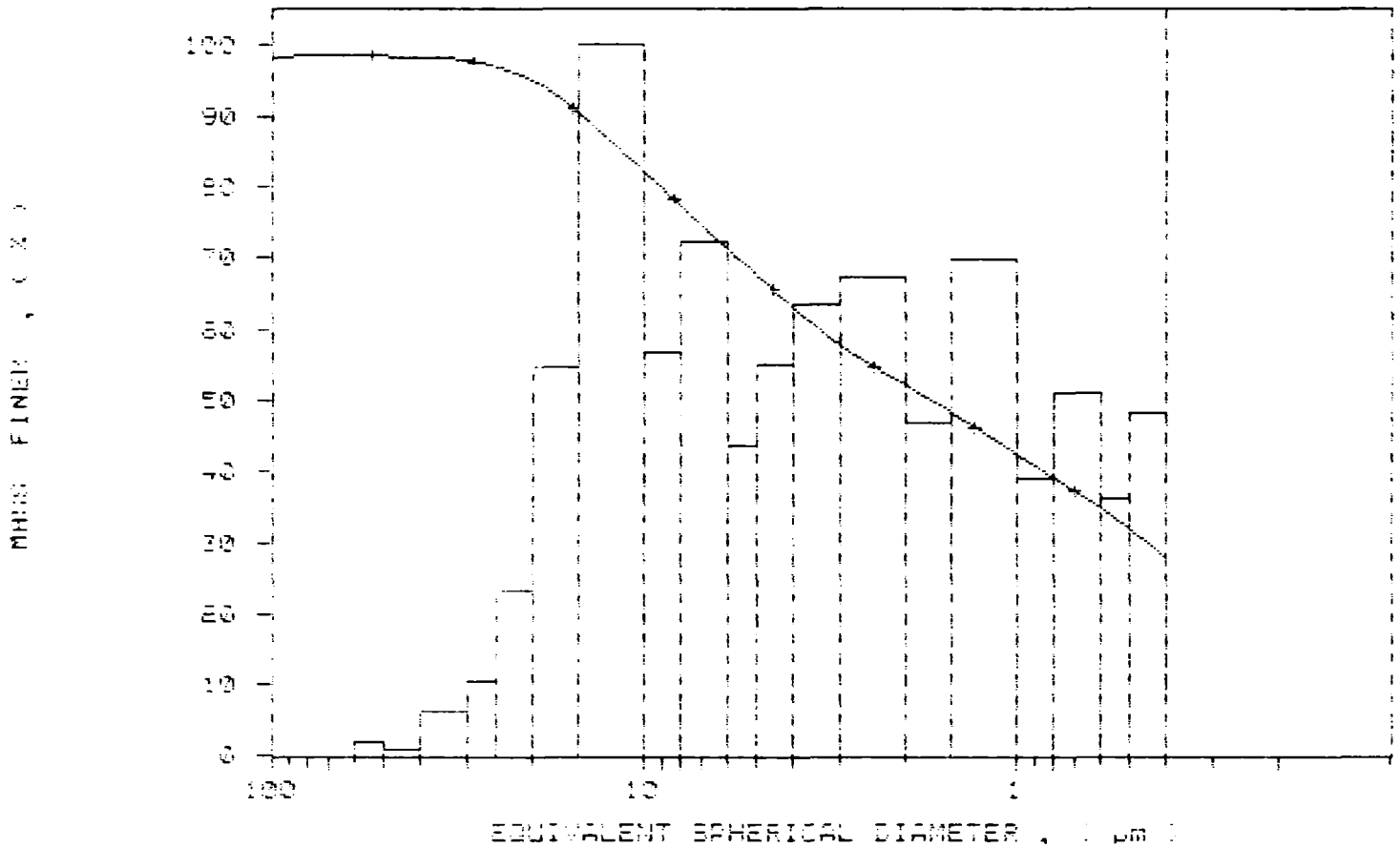
MASS POPULATION VS. DIAMETER  
 + CUMULATIVE MASS PERCENT FINER VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /329  
 SAMPLE ID: Hole PJ 88-2 # 17261  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 90 kilocounts/sec

UNIT NUMBER: 1  
 START 15:19:36 11/09/94  
 REPT 15:31:49 11/09/94  
 TOT RUN TIME 0:07:40  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7633 cp  
 RUN TYPE: High Speed

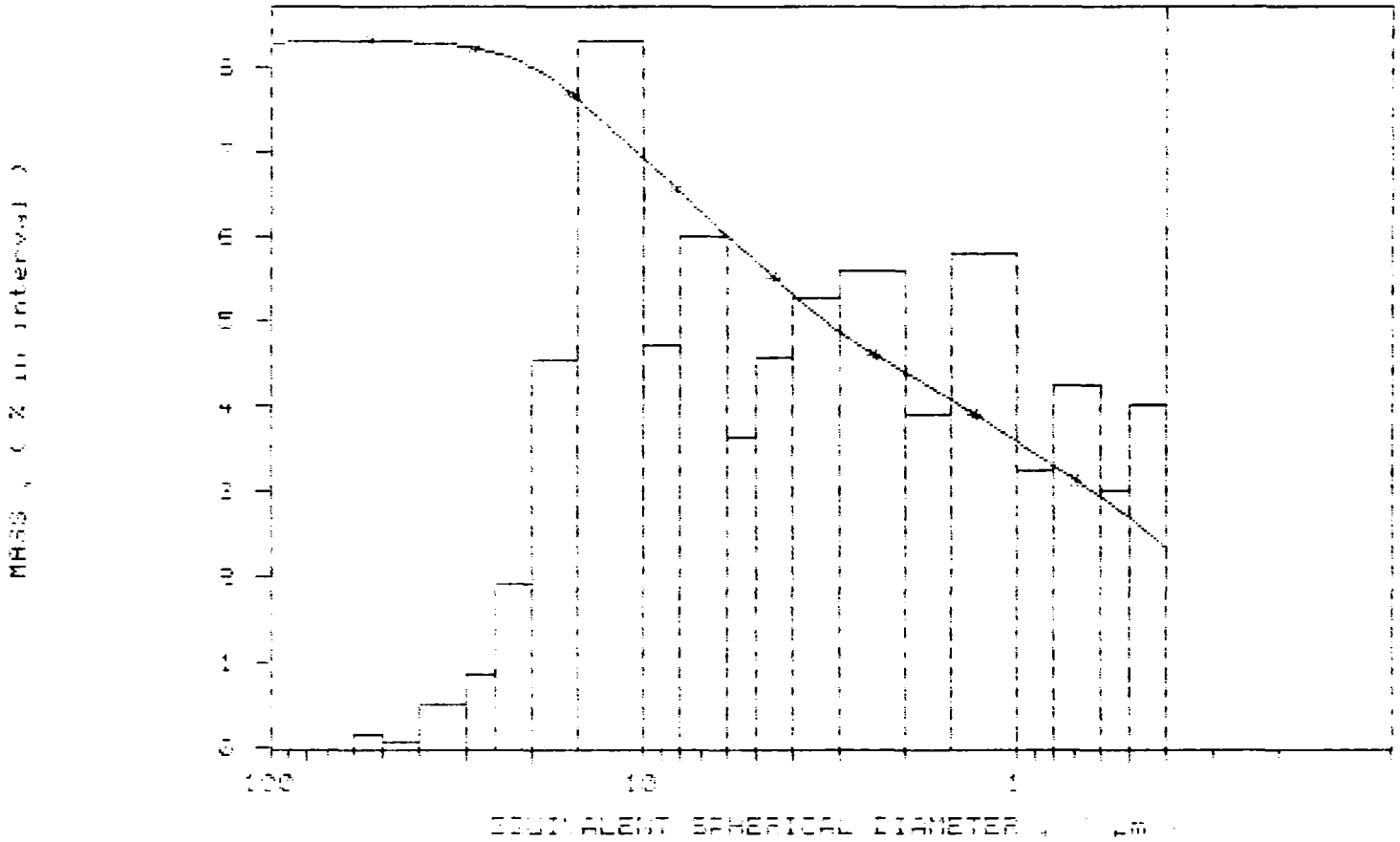
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER  
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /329  
 SAMPLE ID: Hole PJ 88-2 # 17261  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 90 kilocounts/sec

UNIT NUMBER: 1  
 START 15:19:36 11/09/94  
 REPT 15:31:49 11/09/94  
 TOT RUN TIME 0:07:40  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7633 cp  
 RUN TYPE: High Speed

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



SAMPLE DIRECTORY/NUMBER: DATA7 /330  
 SAMPLE ID: Hole PJ 88-2 # 17262  
 SUBMITTER: MRC inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 94 kilocounts/sec

UNIT NUMBER: 1  
 START 15:39:15 11/09/94  
 REPRT 15:51:30 11/09/94  
 TOT RUN TIME 0:07:36  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7634 cp  
 RUN TYPE: High Speed

STARTING DIAMETER: 100.00  $\mu$ m  
 ENDING DIAMETER: 0.40  $\mu$ m

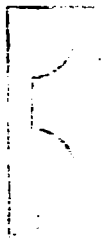
REYNOLDS NUMBER: 1.49  
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 7.28  $\mu$ m

MODAL DIAMETER: 5.85  $\mu$ m

DIAMETER ( $\mu$ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
100.00	99.6	0.4
80.00	99.7	-0.2
60.00	99.9	-0.1
50.00	99.7	0.2
40.00	98.9	0.7
30.00	97.6	1.3
25.00	96.3	1.3
20.00	93.7	2.6
15.00	89.3	4.4
10.00	82.1	7.2
8.00	68.5	13.5
6.00	-24.0	92.5
5.00	-102.2	78.2
4.00	-146.4	44.2
3.00	-144.4	-1.9
2.00	-109.1	-35.4
1.50	-87.1	-22.0
1.00	-67.2	-20.0
0.80	-58.4	-8.8
0.60	-50.4	-8.0
0.50	-48.6	-1.8
0.40	-50.6	2.0



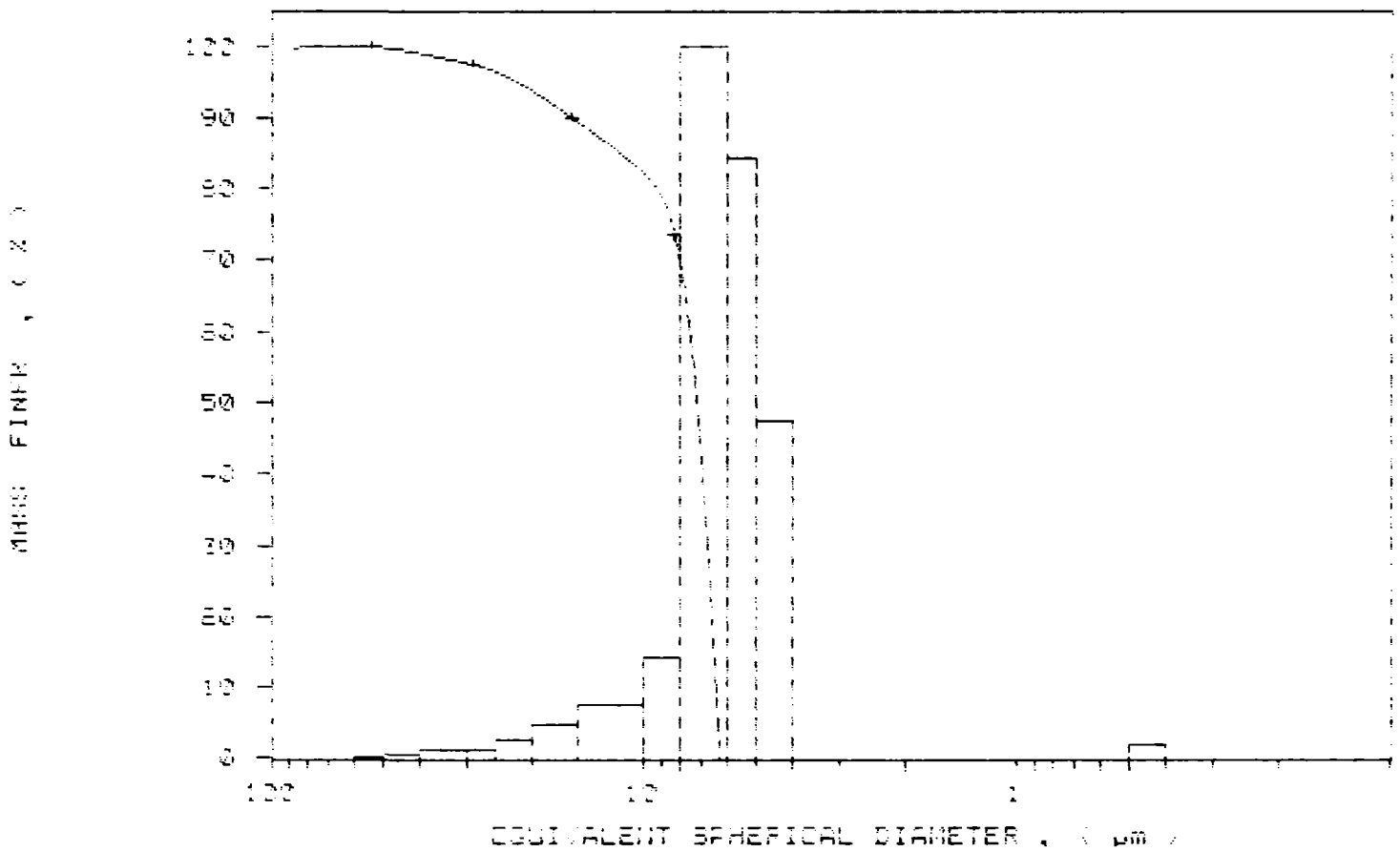
*D. Malmstrom*

000100

SAMPLE DIRECTORY/NUMBER: DATA7 /330  
 SAMPLE ID: Hole PJ 88-2 # 17262  
 SUBMITTER: MRC inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 94 kilocounts/sec

UNIT NUMBER: 1  
 START 15:39:15 11/09/94  
 REPT 15:51:30 11/09/94  
 TOT RUN TIME 0:07:36  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7634 cp  
 RUN TYPE: High Speed

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





SAMPLE DIRECTORY/NUMBER: DATA7 /331  
 SAMPLE ID: Hole PJ 88-2 # 17263  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.2 deg C  
 BASELINE/FULL SCALE: 130/ 103 kilocounts/sec

UNIT NUMBER: 1  
 START 08:40:36 11/10/94  
 REPR 08:48:39 11/10/94  
 TOT RUN TIME 0:07:43  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7645 cp  
 RUN TYPE: High Speed

STARTING DIAMETER: 100.00 um  
 ENDING DIAMETER: 0.40 um

REYNOLDS NUMBER: 1.49  
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.21 um MODAL DIAMETER: 2.36 um

DIAMETER (um)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
100.00	100.2	-0.2
80.00	98.4	1.8
60.00	97.0	1.4
50.00	97.2	-0.2
40.00	97.4	-0.3
30.00	96.8	0.7
25.00	95.9	0.9
20.00	94.3	1.6
15.00	91.3	2.9
10.00	84.7	6.6
8.00	80.7	4.0
6.00	75.5	5.2
5.00	72.5	3.0
4.00	69.3	3.2
3.00	65.0	4.3
2.00	56.5	8.5
1.50	52.2	4.2
1.00	48.3	4.0
0.80	46.1	2.1
0.60	42.7	3.4
0.50	40.1	2.6
0.40	37.5	2.6

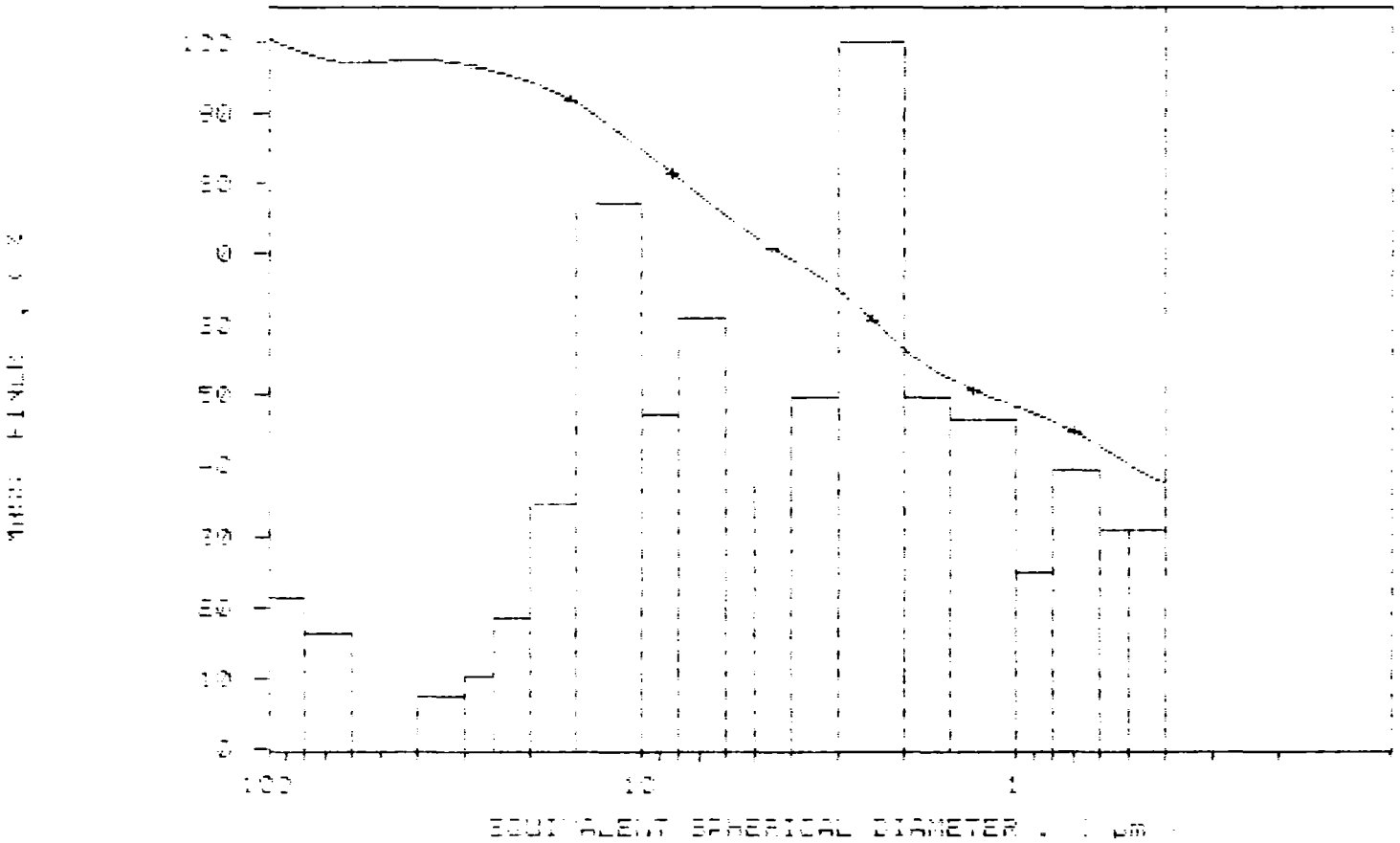
*A. Malmstrom*

000100

SAMPLE DIRECTORY/NUMBER: DATA7 /331  
 SAMPLE ID: Hole PJ 88-2 # 17263  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.2 deg C  
 BASELINE/FULL SCALE: 130/ 103 kilocounts/sec

UNIT NUMBER: 1  
 START 08:40:36 11/10/94  
 REPT 08:48:39 11/10/94  
 TOT RUN TIME 0:07:43  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7645 cp  
 RUN TYPE: High Speed

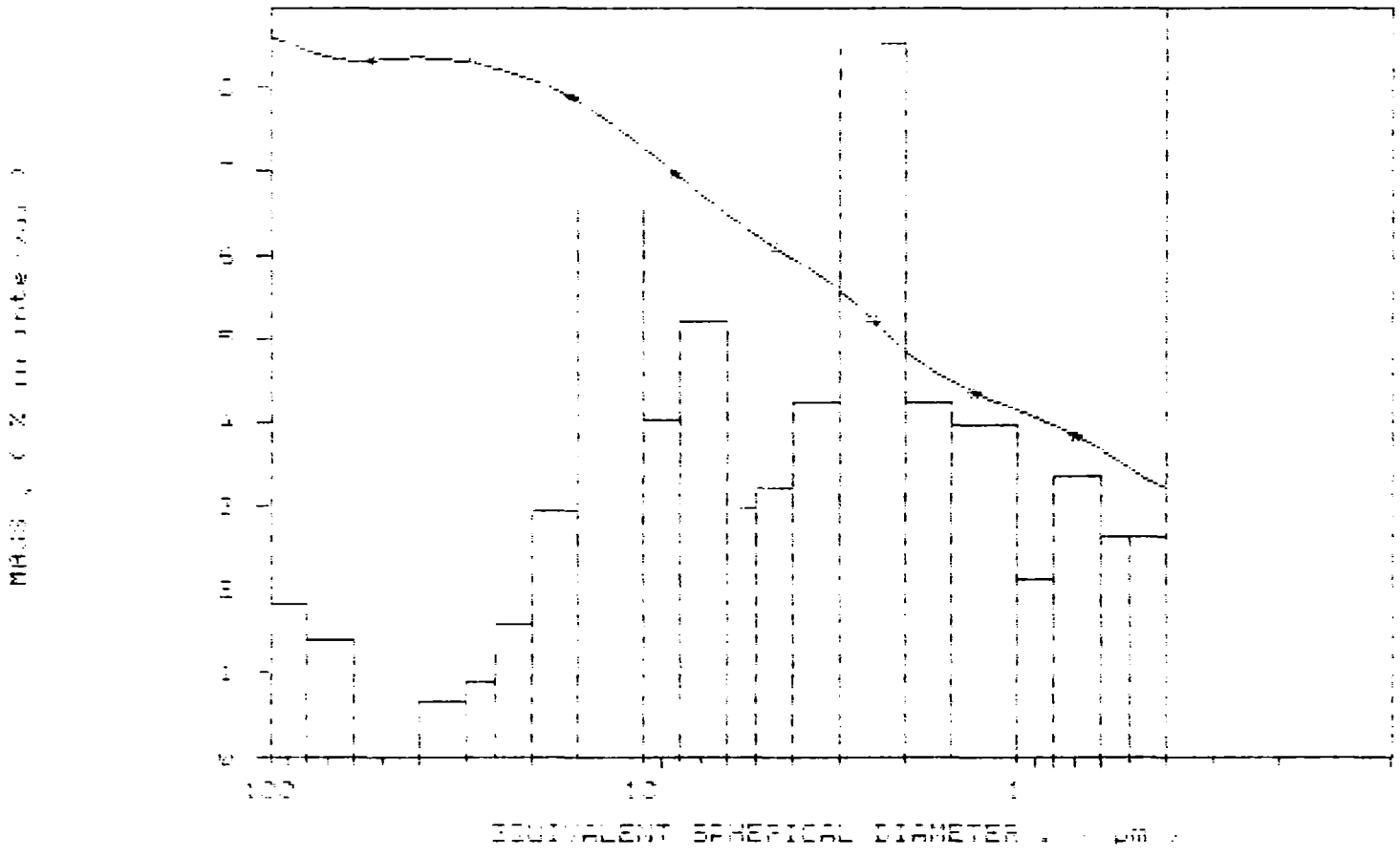
- CUMULATIVE MASS PERCENT FINER VS. DIAMETER  
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /331  
 SAMPLE ID: Hole PJ 88-2 # 17263  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.2 deg C  
 BASELINE/FULL SCALE: 130/ 103 kilocounts/sec

UNIT NUMBER: 1  
 START 08:40:36 11/10/94  
 REPT 08:48:39 11/10/94  
 TOT RUN TIME 0:07:43  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7645 cp  
 RUN TYPE: High Speed

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



SAMPLE DIRECTORY/NUMBER: DATA7 /256  
 SAMPLE ID: Hole 92-3 # 16412  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 79 kilocounts/sec

UNIT NUMBER: 1  
 START 11:24:12 10/25/94  
 REPRT 11:36:37 10/25/94  
 TOT RUN TIME 0:07:53  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7637 cp  
 RUN TYPE: High Speed

STARTING DIAMETER: 100.00  $\mu$ m  
 ENDING DIAMETER: 0.40  $\mu$ m

REYNOLDS NUMBER: 1.49  
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 2.59  $\mu$ m MODAL DIAMETER: 5.64  $\mu$ m

DIAMETER ( $\mu$ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
100.00	99.2	0.8
80.00	99.0	0.2
60.00	99.0	0.0
50.00	99.1	-0.1
40.00	99.2	-0.1
30.00	98.8	0.3
25.00	97.9	0.9
20.00	96.0	2.0
15.00	91.9	4.1
10.00	83.5	8.4
8.00	78.4	5.0
6.00	71.2	7.2
5.00	66.2	5.0
4.00	60.5	5.8
3.00	53.4	7.0
2.00	43.9	9.5
1.50	37.4	6.5
1.00	29.9	7.5
0.80	26.5	3.3
0.60	22.9	3.6
0.50	20.9	2.0
0.40	18.6	2.3

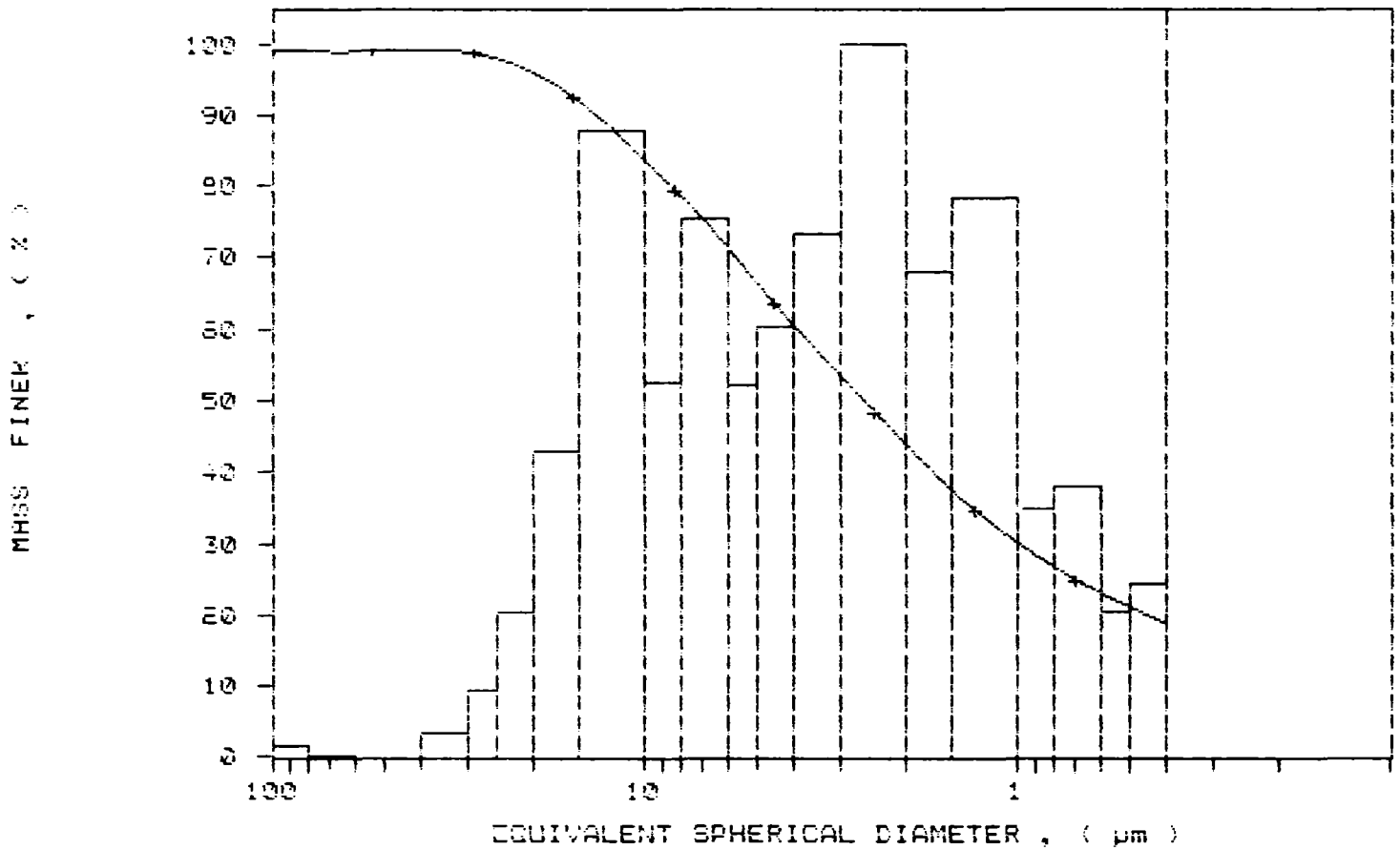
*H. Malmström*

000100

SAMPLE DIRECTORY/NUMBER: DATA7 /256  
 SAMPLE ID: Hole 92-3 # 16412  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 79 kilocounts/sec

UNIT NUMBER: 1  
 START 11:24:12 10/25/94  
 REPR 11:36:37 10/25/94  
 TOT RUN TIME 0:07:53  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7637 cp  
 RUN TYPE: High Speed

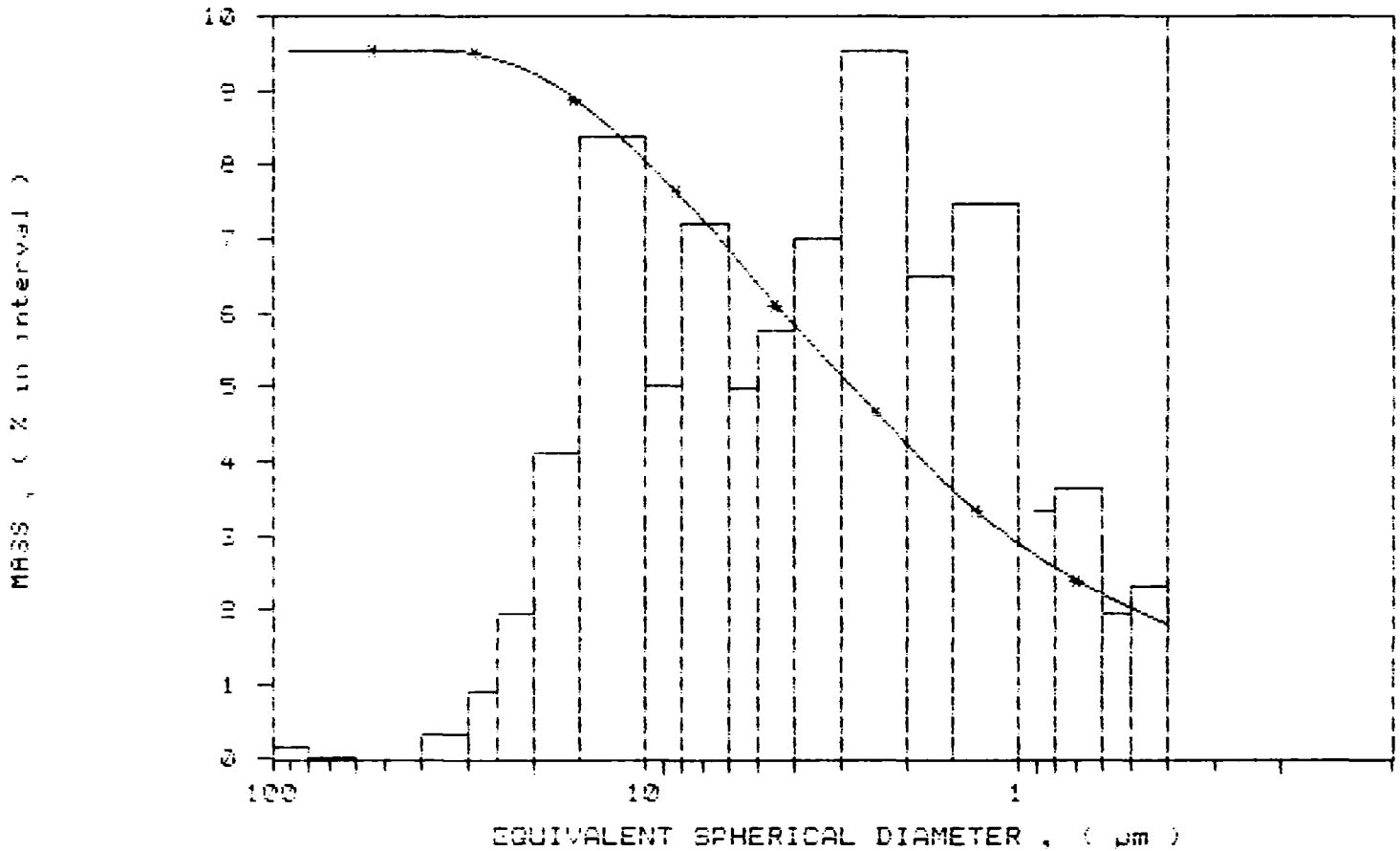
+ CUMULATIVE MASS PERCENT FINER VS. DIAMETER  
 MASS POPULATION VS. DIAMETER



SAMPLE DIRECTORY/NUMBER: DATA7 /256  
 SAMPLE ID: Hole 92-3 # 16412  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 79 kilocounts/sec

UNIT NUMBER: 1  
 START 11:24:12 10/25/94  
 REPT 11:36:37 10/25/94  
 TOT RUN TIME 0:07:53  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7637 cp  
 RUN TYPE: High Speed

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



SAMPLE DIRECTORY/NUMBER: DATA7 /257  
 SAMPLE ID: Hole 92-3 # 16413  
 SUBMITTER: MRC Inc.  
 OPERATOR: KM  
 SAMPLE TYPE: Clay  
 LIQUID TYPE: Water  
 ANALYSIS TEMP: 32.3 deg C  
 BASELINE/FULL SCALE: 130/ 105 kilocounts/sec

UNIT NUMBER: 1  
 START 13:27:48 10/25/94  
 REPRT 13:39:58 10/25/94  
 TOT RUN TIME 0:07:38  
 SAM DENS: 2.6000 g/cc  
 LIQ DENS: 0.9950 g/cc  
 LIQ VISC: 0.7638 cp  
 RUN TYPE: High Speed

STARTING DIAMETER: 100.00  $\mu$ m  
 ENDING DIAMETER: 0.40  $\mu$ m

REYNOLDS NUMBER: 1.49  
 FULL SCALE MASS %: 100

MASS DISTRIBUTION

MEDIAN DIAMETER: 1.95  $\mu$ m

MODAL DIAMETER: 9.82  $\mu$ m

DIAMETER ( $\mu$ m)	CUMULATIVE MASS FINER (%)	MASS IN INTERVAL (%)
100.00	100.1	-0.1
80.00	99.5	0.6
60.00	99.6	-0.1
50.00	99.7	-0.1
40.00	99.5	0.2
30.00	98.3	1.2
25.00	96.9	1.4
20.00	93.9	3.0
15.00	88.7	5.2
10.00	81.0	7.7
8.00	76.0	5.0
6.00	71.0	5.0
5.00	67.5	3.5
4.00	63.3	4.2
3.00	57.9	5.4
2.00	50.4	7.5
1.50	45.9	4.5
1.00	38.5	7.4
0.80	35.9	2.6
0.60	32.6	3.3
0.50	30.4	2.2
0.40	28.2	2.2

*S. Halverson*

000100

SONIC DRILL



020

Drilling Started: Jan. 30, 1992  
 Drilling Finished: Jan. 31, 1992  
 Drilling Co.: Midwest  
 Dip: -90°  
 Hole Length: 250.0'  
 Overburden Depth: 66.0'  
 Claim No.: P 900097  
 Easting: 3205 E  
 Northing: 205 S  
 Azimuth: 50° 08' 42" N, 82° 10' 57" W  
 Location: 1850.0' at 223° To Claim Post No. 1  
 Property: Kipling

Logged By: A. Casselman  
 Logged: ~~MAY 26 1989~~ **MINERAL RESEARCH**  
 Core Size: 3.5"  
 Core Storage:  
 Mineral Research Canada  
 R. R. # 2  
 Parry Sound, ON  
 P2A 2W8  
 Hole No.: 89-16

SUMMARY

From	To	Description	
0.0'	5.0'	Peat	
5.0'	8.5'	Sand	
8.5'	44.0'	Glacial Clay Till	
44.0'	45.0'	Sand	
45.0'	50.0'	Glacial Clay Till	
50.0'	52.5'	Gravel	
53.5'	63.0'	Glacial Clay Till	
63.0'	64.0'	Granitic Boulder	
64.0'	66.0'	Glacial Clay Till	Overburden - Pleistocene
66.0'	83.0'	Sandy Clay	Cretaceous
83.0'	93.0'	Clay	
93.0'	98.0'	Sandy Clay	
98.0'	116.5'	Kaolin Silica Sand (Kss)	
116.5'	130.0'	Clay	
130.0'	161.0'	Kss	
161.0'	163.0'	Sandy Clay	
163.0'	183.0'	Kss	
183.0'	189.0'	Sandy Clay & Kss	
189.0'	195.0'	Clay & Kss	
195.0'	233.0'	Kss	
233.0'	236.0'	Sandy Clay	
236.0'	250.0'	Kss	

*Anne Casselman*  
 Jan. 24, 1992  
 MINERAL RESEARCH  
 42J01NE0017 2.15955 KIJPLING

EOH - 250.0'



Detail Log 89-16

From	To	Sample No.	Description
0.0'	5.0'		Peat
5.0'	8.5'		Sand - greenish grey, well sorted, fine grain, predominantly silica.
8.5'	44.0'		Glacial Clay Till - green/grey, fine grain silt content, clast-free from 8.5' - 18.0', remainder 3.0 - 5.0% carbonate clasts & 10.0% gneissic clasts, up to 1.5", in more competent darker clay.
44.0'	45.0'		Sand - well sorted, fine grain, light grey, predominantely silica.
45.0'	50.0'		Glacial Clay Till - as previous.
50.0'	52.5'		Gravel - greenish grey, poorly sorted, medium grain, 50.0% cobbles of carbonate type & 10.0% gneissic, approximatley 40.0% clay matrix.
52.5'	63.0'		Glacial Clay Till - competent, dark green/brown, calcareous, as previous.
63.0'	64.0'		Granitic Boulder - plagioclase, orthoclase, quartz. - relatively unweathered, drill cut.
64.0'	66.0'		Glacial Clay Till - as above.
66.0'	70.0'	14301	Sandy Clay - fine to medium grain, well sorted, green/grey, 22.63% kaolin.
70.0'	77.0'	14302	Sandy Clay - as above, 22.08% kaolin.
77.0'	83.0'	14303	Sandy Clay - as above, 20.86% kaolin.
83.0'	85.0'	14304	Clay - medium competency, - pliable to friable, 83.0' - 83.5' - yellow, 83.5' - 84.0' - medium brown, 84.0' - 85.0' - red, 80.71% kaolin.
85.0'	93.0'	14305	Clay - competent, buff & red mottled becoming discontinuous laminations, 57.72% kaolin.
93.0'	98.0'	14306	Sandy Clay - non-competent, pliable, 93.0' - 94.0' - light grey, 94.0' -

97.0' - light grey with red clots, 97.0' - 98.0' - light grey, 28.46% kaolin.

98.0'	102.0'	14307	Kss - well sorted, medium grain, intensely yellow. 5.95% kaolin.
102.0'	110.0'	14308	Kss - as above - 102.0' - 104.0', 104.0' - 110.0' - coarse grain, moderate to intense yellow colouration. 6.15% kaolin.
110.0'	115.0'	14309	Kss - well sorted, medium grain, grey/yellow from 110.0' - 112.0', 112.0' - 115.0' - poorly sorted, coarse grain, light grey. 13.52% kaolin.
115.0'	116.5'	14310	Kss - as above, coarse grain, moderate yellow at upper contact. 12.53% kaolin.
116.5'	119.0'	14311	Clay - pliable, light grey/brown. 86.71% kaolin.
119.0'	121.0'	14312	Clay - medium competency, pliable to friable, brown, 71.54% kaolin.
121.0'	124.5'		Clay - competent, disc-like, greasy, medium grey to red grading to red & grey mottled grading to yellow and grey mottled.
124.5'	130.0'		Clay - some silty sections with high illite, competent, greasy, chocolate brown.
130.0'	133.0'		Kss - medium grain, white, entire remainder of hole dried.
133.0'	137.0'		Kss - medium grain, white, as above, some darker brown areas due to contamination.
137.0'	141.0'		Kss - medium grain, white, as above.
141.0'	145.0'		Kss - medium grain, grading to fine grain, white, minor illite.
145.0'	150.0'		Kss - medium grain, white.
150.0'	155.0'		Kss - medium grain, light brown.
155.0'	158.0'		Kss - medium grain, rare coarser smoky quartz clasts, light brown.
158.0'	161.0'		Kss - medium grain, medium brown.
161.0'	163.0'		Sandy Clay - very fine grain, silty, competent, semi-pliable, medium brown, minor illite, moist.

163.0'	166.0'	Kss - medium grain, white, heavies and illite as minors.
166.0'	170.0'	Kss - fine grain, white, minor illite.
170.0'	174.0'	Kss - as above, moist.
174.0'	179.0'	Kss - medium grain, white.
179.0'	183.0'	Kss - as above.
183.0'	189.0'	Kss & Sandy Clay - interbedded, fine grain, illitic sandy clay with medium grain kss, moist, medium brown.
189.0'	195.0'	Clay & Kss - interbedded - competent, disc-like, greasy, chocolate brown and buff clay interbedded with medium grain light grey kss, minor illite.
195.0'	200.0'	Kss - fine grain, light grey, minor illite.
200.0'	205.0'	Kss - as above.
205.0'	210.0'	Kss - medium grain, frequent, coarser smoky quartz clasts, as well as vari-coloured silica, light grey, minor heavies and illite.
210.0'	215.0'	Kss - as above.
215.0'	219.0'	Kss - clay-rich, fine grain, medium grey, minor heavies and illite.
219.0'	224.0'	Kss - as above.
224.0'	229.0'	Kss - medium grain, coarsening downsection to coarse clasts up to 2.5" in a white clay matrix, remainder light grey, vari-coloured siliceous angular to rounded, one silica with frequent black specks and mottling on one face, possibly tourmaline in a light yellow chert/silica matrix.
229.0'	233.0'	Kss - as above.
233.0'	236.0'	Sandy Clay - fine grain, buff, minor illite, some kss contamination.
236.0'	240.0'	Kss - medium grain, with larger vari-coloured silicas, light grey, sulphureous smell, one yellow patch.
240.0'	243.0'	Kss - medium grain, light grey.
243.0'	246.0'	Kss - medium grain, white.

246.0' 250.0' Kss - as above.

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EOH - 250.0'

Section 89-16

Claim No.: P 900097

Hole Length: 250.0'

Overburden Depth: 66.0'

Astronomic Azimuth:  $50^{\circ} 08' 42''$  W.  $82^{\circ} 10' 57''$  N.

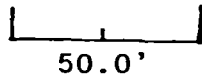
Location: 1850.0' at  $223^{\circ}$  to claim post no. 1

Scale: 1.0" = 50.0' or 1:600

Northing: 205 S

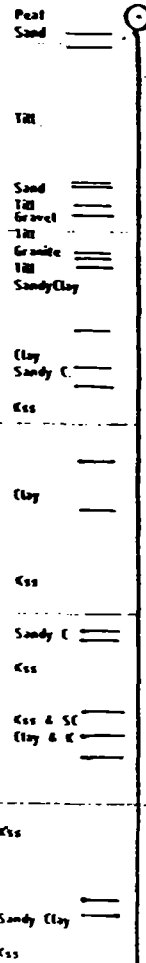
Easting: 3205 E

Dip:  $-90^{\circ}$



Gridline 3300

89-16



Section 89-16

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Claim No.: P 900097

Hole Length: 250.0'

Overburden Depth: 66.0'

Astronomic Azimuth: 50° 08' 42" N, 82° 10' 57" W

Location: 1850.0' at 223° to claim post no. 1

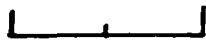
Scale: 1.0" = 50.0' or 1:600

Northing: 205 S

Easting: 3205 E

Dip: -90°

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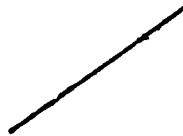
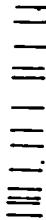


50.0'

Gridline 3300

89-16

4.301  
4.302  
4.303  
4.304  
4.305  
4.306  
4.307  
4.308  
4.309  
4.310  
4.311  
4.312



000100

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" N, 82° 09' 33" W  
 Location: 1600.0' at 199° to claim post 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
140.0'	172.0'	Kaolin Silica Sand (Kss)
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

RECEIVED

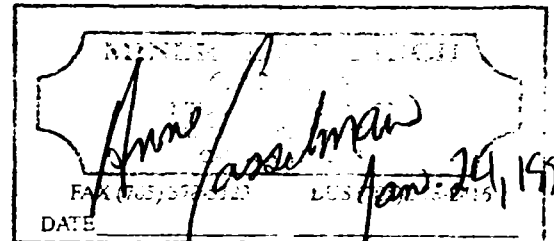
APR 26 1995

MINING LANDS BRANCH

Overburden - Pleistocene

Cretaceous

2.15955



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, 10.91% kaolin.
162.0'	166.0'	16456	Kss - as above, medium grain, grading downsection, 2.0', to coarse 2.0" sharp contact with fine grain, 7.80% kaolin.
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", 11.90% kaolin.

- 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, 36.00% kaolin.
- 174.5' 177.0' 16459 Kss - medium grain, light brown, rare larger sub-rounded smoky quartz up to 0.25", minor illite and heavies, 10.63% kaolin.
- 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, 14.41% kaolin.
- 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 horseshoeshaped clot 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, 10.38% kaolin



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, 8.63% kaolin.

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, 20.10% kaolin.

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, 9.09% kaolin.

- 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), 16.25% kaolin.
- 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, 16.53% kaolin.
- 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, 29.52% kaolin.

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EOH - 252.0'

Section 92-4

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Claim No.: P 1112320

Hole Length: 252.0'

Overburden Depth: 140.0'

Astronomic Azimuth: 50° 09' 16" N, 82° 09' 33" W

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

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  $199^{\circ}$  to claim post no. 1

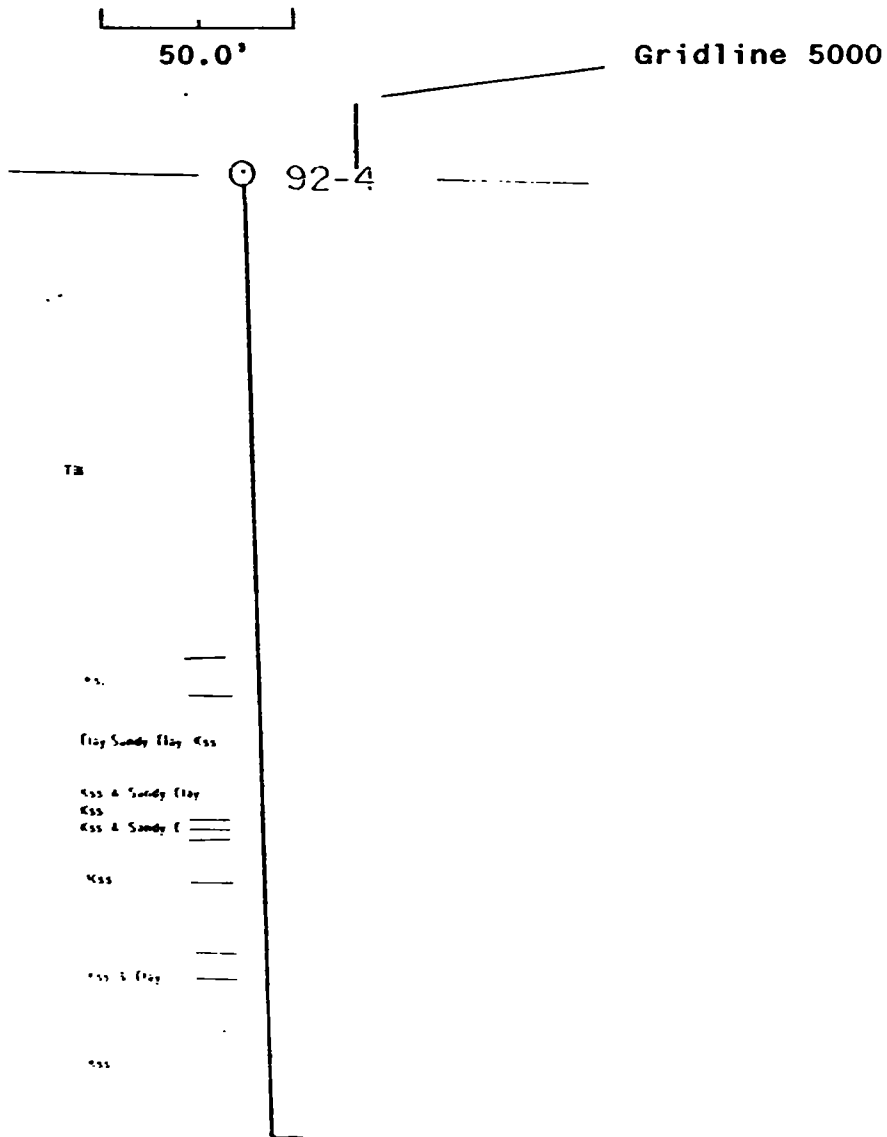
Scale: 1.0" = 50.0' or 1:600

Northing: 1470 N

Easting: 4970 E

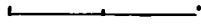
Dip:  $-90^{\circ}$

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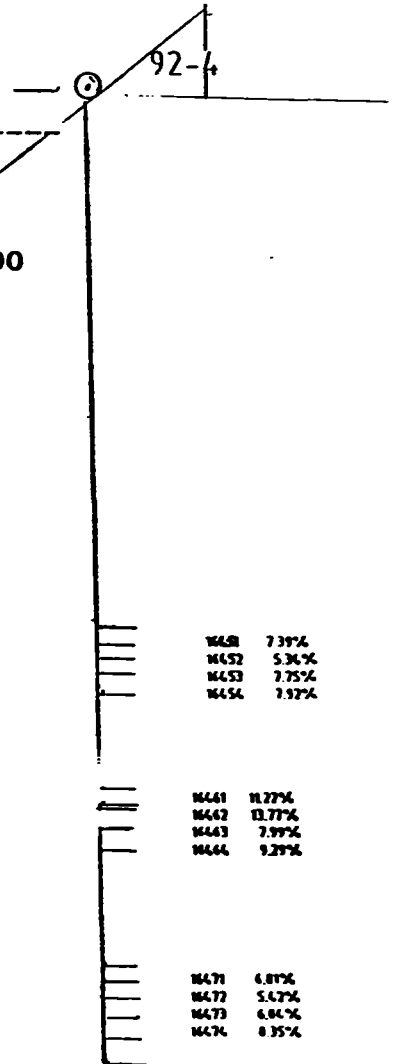
Section 92-4

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  $199^{\circ}$  to claim post no. 1  
Scale: 1.0" = 50.0' or 1:600  
Northing: 1470 N  
Easting: 4970 E  
Dip:  $-90^{\circ}$



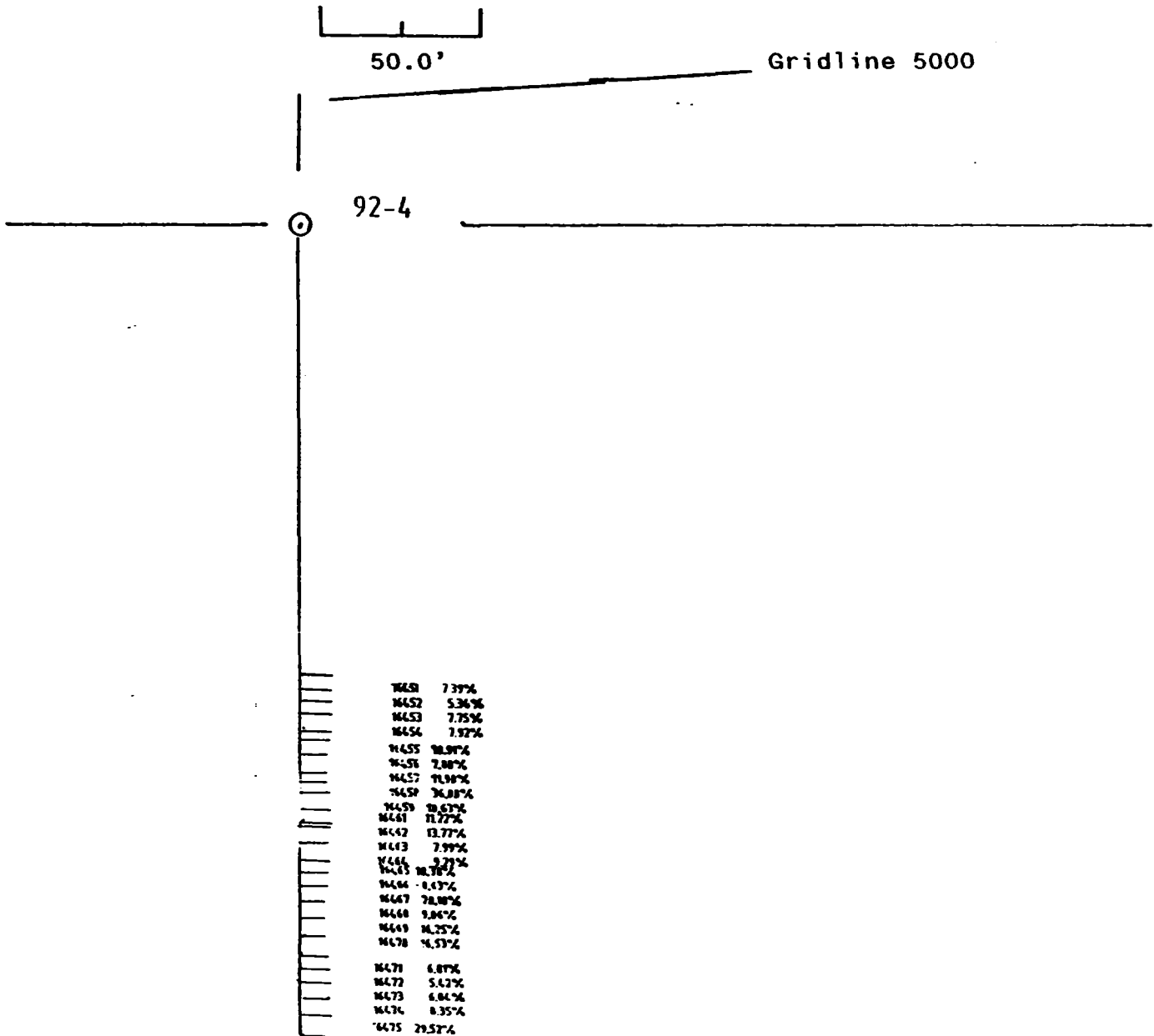
50.0'

Gridline 5000



Section 92-4

Claim No.: P 1112320  
Hole Length: 252.0'  
Overburden Depth: 140.0'  
Astronomic Azimuth: 50° 09' 16" N, 82° 09' 33" W  
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°





000100

SONIC DRILL HOLE RECORD

Drilling Started: Mar. 14, 1992  
 Drilling Finished: Mar. 15, 1992  
 Drilling Co.: J. R. Drilling  
 Dip: -90°  
 Hole Length: 250.0'  
 Overburden Depth: 145.5'  
 Claim No: P 825792  
 Easting: 4900 E  
 Northing: 840 N  
 Azimuth: 50° 09' 10" N, 82° 09' 32" W  
 Location: 530.0' at 253° To Claim Post No. 1  
 Property: Kipling

Logged By: A. Casselman  
 Logged: Sept. 8, 1992  
 Core Size: 3.5"  
 Core Storage:  
 Mineral Research Canada  
 R. R. # 2  
 Parry Sound, ON  
 P2A 2W8  
 Hole No.: 92-3

RECEIVED  
 APR 26 1995  
 MINING LANDS BRANCH

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) <b>2.15955</b>
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

MINING LANDS BRANCH  
 A. Casselman  
 Jan 24, 1995  
 2016

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

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 gooey

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, 7.65% kaolin.

233.0'	237.0'	16426	Kss - as above, 5.85% kaolin.
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, 10.00% kaolin.
240.0'	242.75'	16428	Sandy Clay - buff, pliable, minor purple sections, minor illite and heavies, 35.34% kaolin.
242.75'	245.0'	16429	Kss - light grey, fine grain, high percentage heavies, minor illite, 13.39% kaolin.
245.0'	250.0'	16430	Kss - fine grain, as above, coarsening downsection to medium grain portion, minor illite and heavies, & heavies as banding, 7.54% kaolin.

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EOH - 250.0'

Section 92-3

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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  $253^{\circ}$  from claim post no. 1

Scale: 1.0" = 50.0' or 1:600

Northing: 840 m N

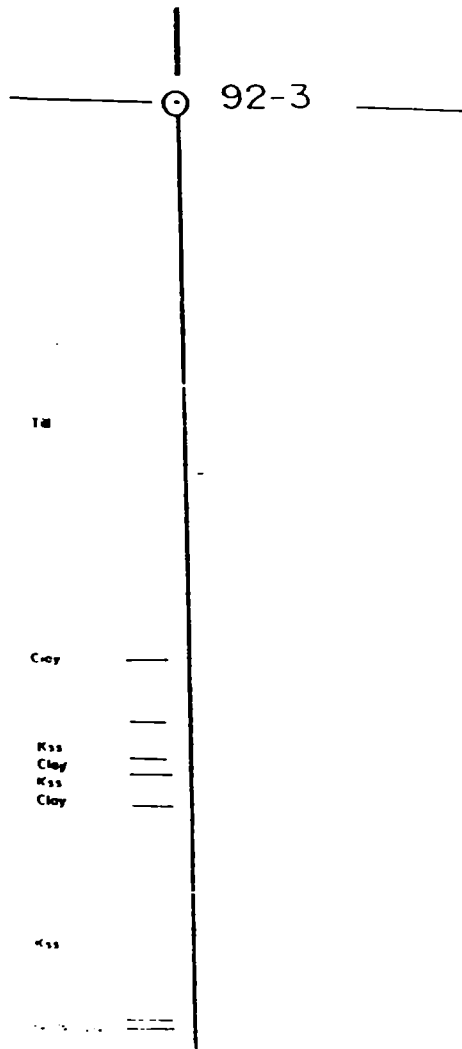
Easting: 4900 m E

Dip:  $-90^{\circ}$

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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

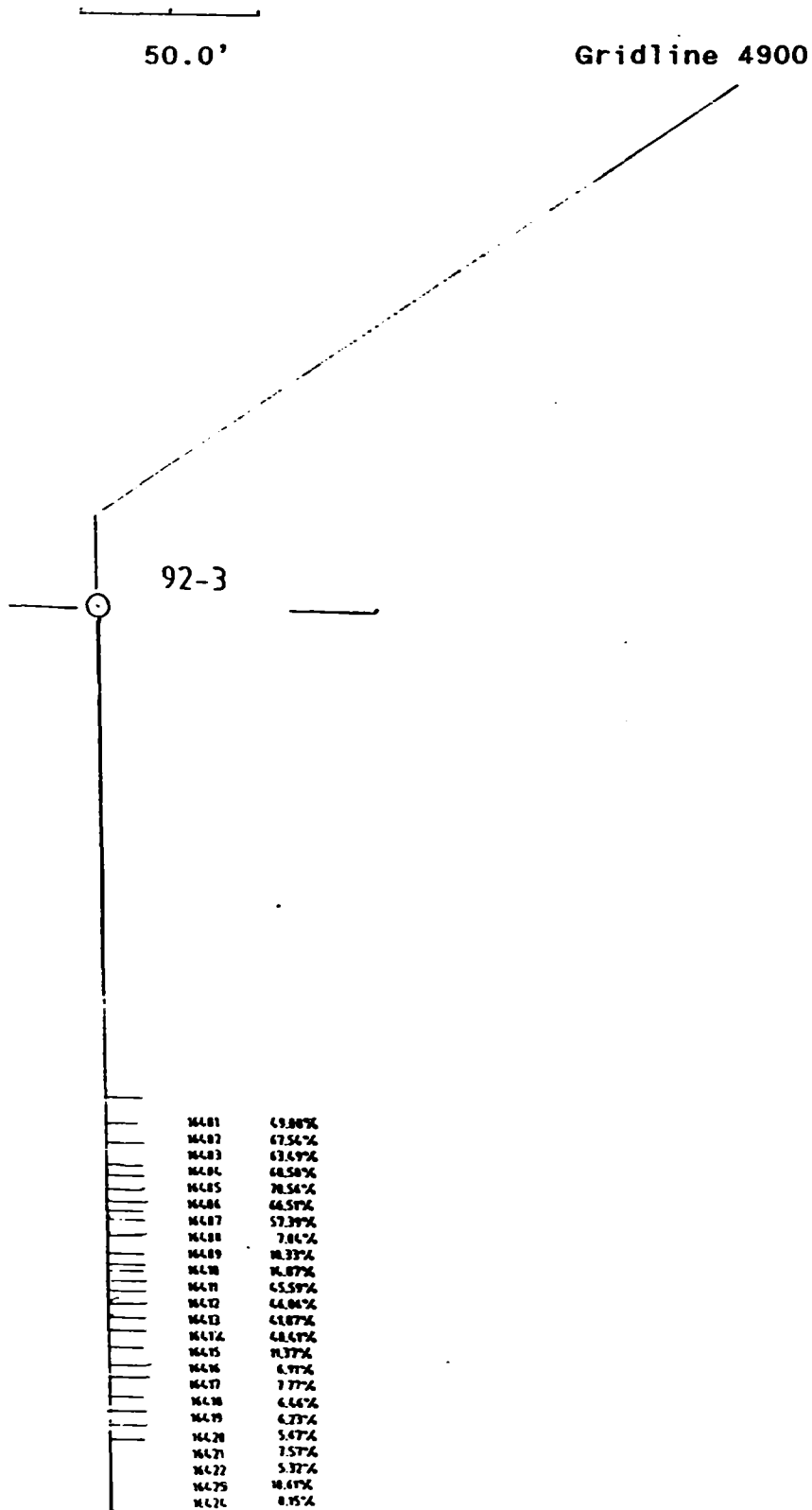
Location: 530.0' at  $253^{\circ}$  from claim post no. 1

Scale: 1.0" = 50.0' or 1:600

Northing: 840 m N

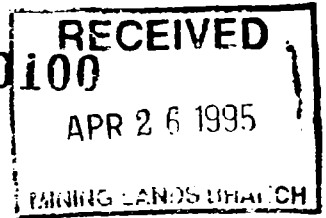
Easting: 4900 m E

Dip:  $-90^{\circ}$





2.1595 5000100



ROTARY DRILL HOLE RECORD

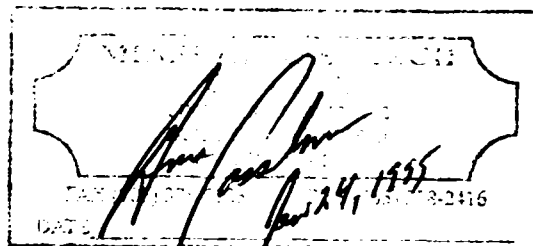
Drilling Started: Dec. 19, 1988
Drilling Finished: Dec. 20, 1988
Drilling Co.: Midwest
Dip Collar: -90°
Hole Length: 170.0'
Overburden Depth: 115.0'
Claim No.: P 825794
Easting: 4600 E
Northing: 10 N
Azimuth: 50° 08' 51" N, 82° 09' 40" W
Location: 1400.0' at 270° To Claim Post No. 1
Property: Kipling

Logged By: A. Casselman
Logged: April 13, 1989
Core Size: 3.5"
Core Storage:
Mineral Research Canada
R. R. # 2
Parry Sound, ON
P2A 2W8
Hole No.: PJ88-2

SUMMARY

Table with 3 columns: From, To, Description. Rows include: 0.0' to 115.0' Glacial Clay Till Overburden - Pleistocene; 115.0' to 120.0' Clay & Sandy Clay - interbedded Cretaceous; 120.0' to 142.0' Kaolin Silica Sand (Kss); 142.0' to 146.0' Clay; 146.0' to 169.0' Sandy Clay; 169.0' to 170.0' Clay

EOH - 170.0'



Detail Log PJ88-2

From	To	Sample No.	Description
0.0'	115.0'		Glacial Clay Till - competent, dark green\brown, calcareous, 2.0 - 5.0% carbonate clasts, 15.0% gneissic clasts from 0.25" - 1.75".
115.0'	118.0'	17251	Clay - competent and disc-like, light brown and red mottled, some yellow, 63.37% kaolin.
118.0'	120.0'	17252	Sandy clay - light brown, minor illite, entire hole smells mouldy, 30.42% kaolin.
120.0'	126.0'	17253	Kss - medium grain, light brown, dried. 8.32% kaolin.
126.0'	129.0'	17254	Kss - medium grain, light brown, minor illite, moist, 8.37% kaolin.
129.0'	134.0'	17255	Kss - medium grain, light brown, 10.33% kaolin.
134.0'	139.0'	17256	Kss - medium grain, medium grey, larger rounded smoky quartz, minor heavies, dried, 5.93% kaolin.
139.0'	142.0'	17257	Kss - coarse grain, fining downsection to medium grain, light grey, dried, 7.27% kaolin.
142.0'	146.0'	17258	Clay - competent, disc-like, greasy, buff with yellow & purple laminations, mottled to medium brown, 72.21% kaolin.
146.0'	152.0'	17259	Sandy Clay - competent, fine grain, buff, few darker laminations at upper contact, dried, 41.70% kaolin.
152.0'	157.0'	17260	Sandy Clay - competent, disc-like, greasy, chocolate brown, with carbonaceous laminations at upper contact, dried, 47.00% kaolin.
157.0'	162.0'	17261	Sandy Clay - as above, 55.95% kaolin.
162.0'	169.0'	17262	Sandy Clay - competent, fissile, chocolate brown - as above, haematite staining, much drilling debris, 44.67% kaolin.
169.0'	170.0'	17263	Clay - competent, fissile, medium

yellow, with some medium brown mottling,  
64.32% kaolin.

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EOH - 170.0'

Section PJ88-2

Claim No.: P 825794

Hole Length: 170.0'

Overburden Depth: 115.0'

Astronomic Azimuth:  $50^{\circ} 08' 51''$  W.  $82^{\circ} 09' 40''$  N

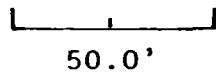
Location: 1400.0' at  $270^{\circ}$  to claim post no.1

Scale: 1.0" = 50.0' or 1:600

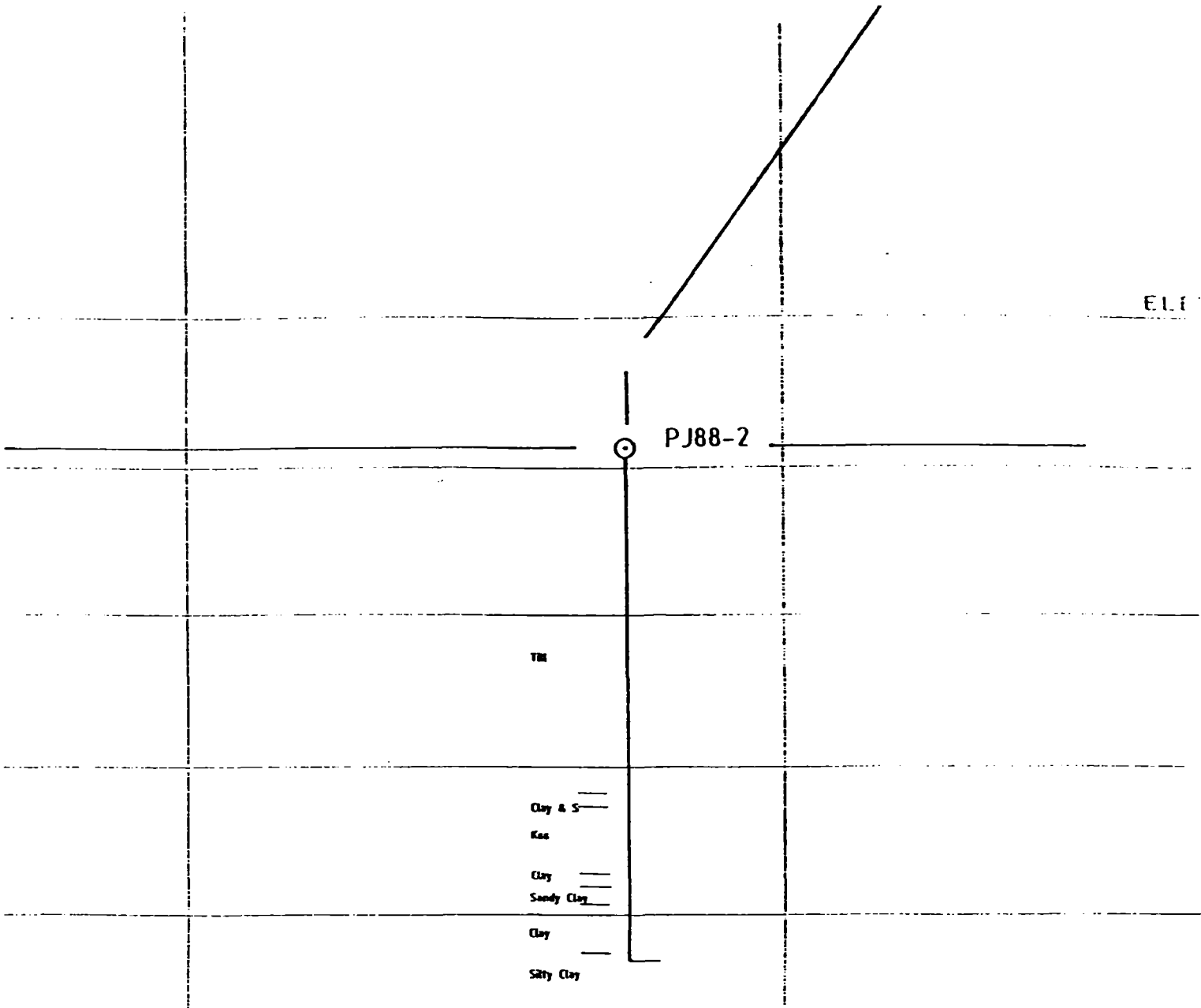
Northing: 010 N

Easting: 4600 E

Dip:  $-90^{\circ}$



Gridline 4600



Section PJ88-2

Claim No.: P 825794

Hole Length: 170.0'

Overburden Depth: 115.0'

Astronomic Azimuth: 50° 08' 51" N, 82° 09' 40" W

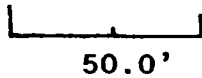
Location: 1400.0' at 270° to claim post no.1

Scale: 1.0" = 50.0' or 1:600

Northing: 010 N

Easting: 4600 E

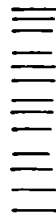
Dip: -90°



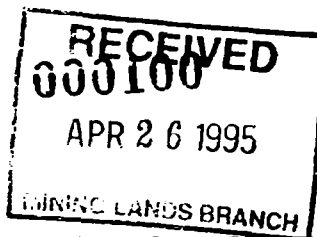
Gridline 4600

PJ88-2

17251	63.37%
17252	36.42%
17253	8.32%
17254	8.37%
17255	10.33%
17256	5.93%
17257	7.77%
17258	72.21%
17259	61.76%
17260	67.86%
17261	55.95%
17262	66.67%
17263	66.37%



2. 150 5



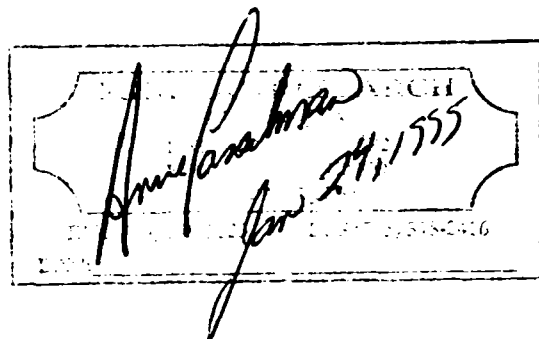
ROTARY DRILL HOLE RECORD

Drilling Started: Dec. 18, 1988
Drilling Finished: Dec. 19, 1988
Drilling Co.: Midwest
Dip Collar: -90°
Hole Length: 185.0'
Overburden Depth: 86.0'
Claim No.: P 825794
Easting: 5010 E
Northing: BL 00 N
Azimuth: 50° 08' 50" N, 82° 09' 15" W
Location: 100.0' at 245° To Claim Post No. 1
Property: Kipling

Logged By: A. Casselman
Logged: April 12, 1989
Core Size: 3.5"
Core Storage:
Mineral Research Canada Inc.
R. R. # 2
Parry Sound, ON
P2A 2W8
Hole Number: PJ88-3

SUMMARY

Table with 3 columns: From, To, Description. Rows include: 0.0' 86.0' Glacial Clay Till Overburden - Pleistocene; 86.0' 133.0' Kaolin Silica Sand (Kss) Cretaceous; 133.0' 135.0' Clay; 135.0' 141.0' Kss; 141.0' 143.0' Clay; 143.0' 149.0' Kss; 149.0' 153.0' Sandy Clay; 153.0' 158.0' Kss; 158.0' 160.0' Clay; 160.0' 170.0' Sandy Clay; 170.0' 185.0' Kss



EOH - 185.0'

Detail Log - PJ88-3

From	To	Sample No.	Description
0.0'	86.0'		Glacial Clay Till - competent, dark green/brown, calcareous, 2.0 - 5.0% carbonate clast & 10.0% gneissic clasts alternating with light brown massive, pliable, clast-free material.
86.0'	89.0'	3751	Kss - coarse grain, high clay content, white, - white clay seam at 87.0' - 87.25', kss - purple from 88.0' - 89.0', containing vari-coloured silicas. 19.85% kaolin - calculated.
89.0'	94.0'	3752	Kss - as above, purple and brown laminations from 93.0' - 93.5'. 9.16% kaolin - calculated.
94.0'	99.0'	3753	Kss - fine grain, dark grey & brown, some areas of white, 1.0" band of rose colouration at 95.0', minor illite and heavies. 5.11 % kaolin - calculated.
99.0'	105.0'	3754	Kss - as above, mostly white. 5.62% kaolin - calculated.
105.0'	110.0'	3755	Kss - as above. 6.03% kaolin - calculated.
110.0'	113.0'	3756	Kss - as above, interbedded with medium brown pliable clay from 111.0' - 111.75'. 8.53% kaolin - calculated.
113.0'	118.0'	3757	Kss - as above, no clay seams. 6.81% kaolin - calculated.
118.0'	121.0'	3758	Kss - as above, dark colouration from 119.0' - 119.25'. 10.05% kaolin.
121.0'	126.0'	3759	Kss - medium grain, white, entire hole dried.
126.0'	130.0'	3760	Kss - medium grain, white.
130.0'	133.0'	3761	Kss - medium grain, light grey.
133.0'	135.0'	3762	Clay - competent, large disc-like sections, greasy, buff with dark red laminations.
135.0'	141.0'	3763	Kss - with dried buff clay interbeds-competent, interbedded with medium

grain, medium brown kss, first foot is sandy clay grading to kss.

141.0'	143.0'	3764	Clay - competent, fissile, buff, rare yellow laminations at the upper footages, carbonaceous.
143.0'	149.0'	3765	Kss - medium grain, light grey, haematite staining due to drilling debris.
149.0'	153.0'	3766	Sandy Clay - competent, fissile, fine grain, buff, darkening downsection to near black with darker laminations, minor illite.
153.0'	158.0'	3767	Kss - medium grain, dark brown, drilling debris.
158.0'	160.0'	3768	Sandy Clay grading to clay - 159.0' - 159.5' - slightly carbonaceous, competent, fissile, chocolate brown from 158.0' - 159.0', medium brown, 159.0' - 159.5' - medium brown and yellow/green mottled, illitic in the chocolate portion.
160.0'	163.0'	3769	Sandy Clay - competent, disc-like, some areas are fissile, buff with a few darker brown and yellow seams, minor illite, drilling debris.
163.0'	166.0'	3770	Sandy Clay - as above.
166.0'	170.0'	3771	Sandy Clay - competent, fissile, buff, rare darker laminations, minor illite, drilling debris.
170.0'	174.0'	3772	Kss - medium grain, light brown.
174.0'	177.0'	3773	Kss - medium grain, medium grey, drilling debris.
177.0'	181.0'	3774	Kss - medium grain, medium grey, becoming white coarse grain last foot, vari-coloured silica.
181.0'	185.0'	3775	Kss - white, coarse grain as above, grading to medium grain, yellow brown, drilling debris.

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EOH - 185.0'



Section PJ88-3

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Claim No.: P 825794

Hole Length: 185.0'

Overburden Depth: 86.0'

Astronomic Azimuth: 50° 08' 50" N, 82° 09' 15" N

Location: 100.0' at 245° to claim post no. 1

Scale: 1.0" = 50.0' or 1:600

Northing: BL 00 N

Easting: 5100 E

Dip: -90°

---

50.0'

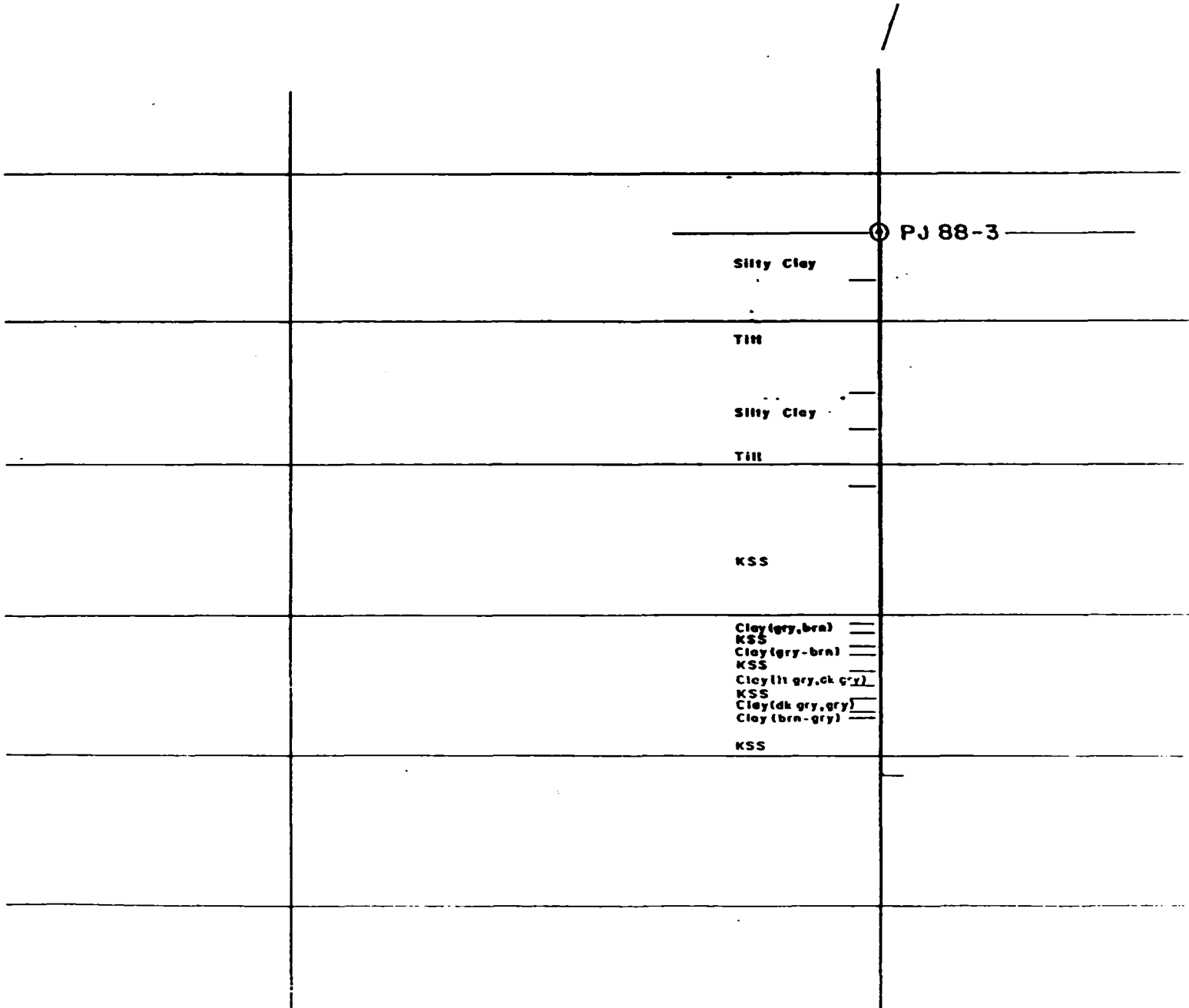
Gridline 5100

Section PJ88-3

Claim No.: P 825794  
 Hole Length: 185.0'  
 Overburden Depth: 86.0'  
 Astronomic Azimuth: 50° 08' 50" W. 82° 09' 15" N  
 Location: 100.0' at 245° to claim post no. 1  
 Scale: 1.0" = 50.0' or 1:600  
 Northing: BL 00 N  
 Easting: 5100 E  
 Dip: -90°

50.0'

Gridline 5100



PJ 88-3

Silty Clay

Till

Silty Clay

Till

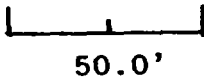
KSS

Clay (gry, brn) —  
 KSS —  
 Clay (gry-brn) —  
 KSS —  
 Clay (lt gry, dk gry) —  
 KSS —  
 Clay (dk gry, gry) —  
 Clay (brn-gry) —

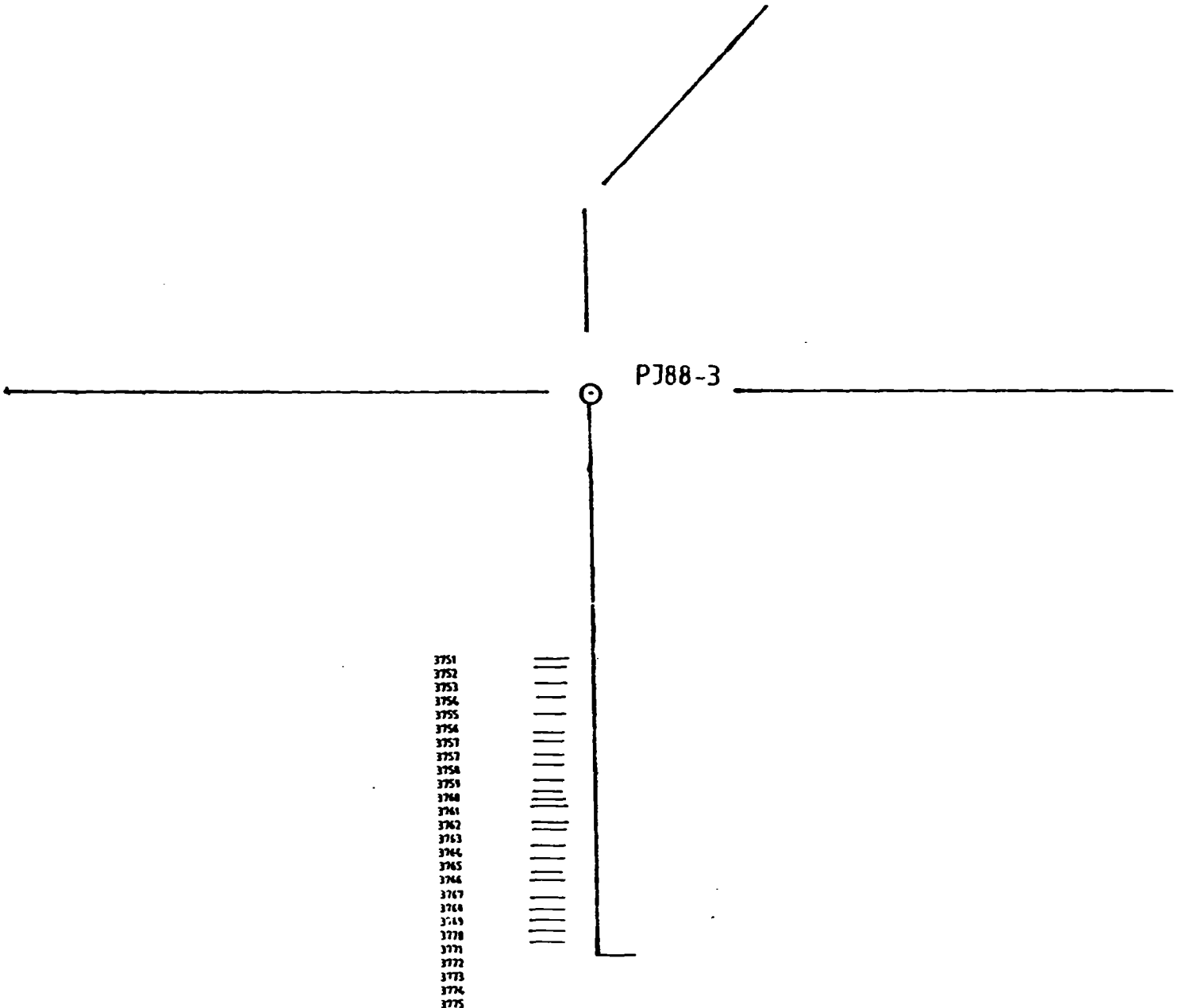
KSS

Section PJ88-3

Claim No.: P 825794  
Hole Length: 185.0'  
Overburden Depth: 86.0'  
Astronomic Azimuth: 50° 08' 50" N, 82° 09' 15" N  
Location: 100.0' at 245° to claim post no. 1  
Scale: 1.0" = 50.0' or 1:600  
Northing: BL 00 N  
Easting: 5100 E  
Dip: -90°



Gridline 5100



000100

## ROTARY DRILL HOLE RECORD

Drilling Started: Mar. 17, 1989  
 Drilling Finished: Mar. 18, 1989  
 Drilling Co.: Midwest  
 Dip: -90°  
 Hole Length: 225.0'  
 Overburden: 83.0'  
 Claim No.: P 900096  
 Easting: 2800 E  
 Northing: 200 S  
 Azimuth: 50° 08' 44" N, 82° 11' 20" W  
 Location: 1850.0' at 225° To Claim Post No. 1  
 Property: Kipling

Logged By: A. Casselman  
 Logged: May 2, 1989  
 Core Size: 3.5"  
 Core Storage:  
 Mineral Research Canada  
 R. R. # 2  
 Parry Sound, ON  
 P2A 2W8  
 Hole No.: 89-119

## SUMMARY

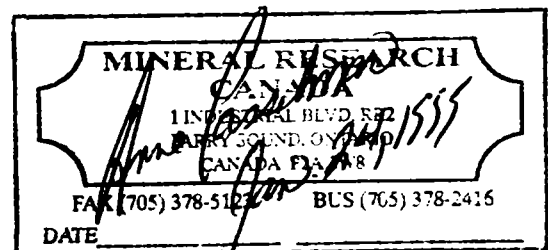
From	To	Description	
0.0'	5.0'	Peat	
5.0'	9.0'	Sand	
9.0'	55.0'	Glacial Clay Till	
55.0'	64.0'	Sand	
64.0'	79.0'	Glacial Clay Till	
79.0'	83.0'	Sand - Overburden -	Pleistocene
83.0'	115.0'	Kaolin Silica Sand (Kss)	- Cretaceous
115.0'	115.5'	Clay	
115.5'	129.0'	Kss	
129.0'	133.0'	Kss & Clay	
133.0'	140.0'	Kss	
140.0'	145.0'	Clay	
145.0'	158.0'	Sandy Clay	
158.0'	210.0'	Kss	
210.0'	212.0'	Sandy Clay	
212.0'	225.0'	Kss	

RECEIVED

APR 26 1995

MINING LANDS BRANCH

2.15955



EOH - 225.0'

Detail Log - 89-119

From	To	Sample No.	Description
0.0'	5.0'		Peat
5.0'	9.0'		Sand
9.0'	55.0'		Glacial Clay Till
55.0'	64.0'		Sand
64.0'	79.0'		Glacial Clay Till - dark brown, competent, rare angular to sub-rounded clasts up to 3.0", gneissic and carbonate.
79.0'	83.0'		Sand - medium grain, coarsening downsection to 0.5" clasts, high heavies.
83.0'	90.0'	001	Kss - medium grain, coarsening downsection, white, slightly yellow, very little clay, minor illite and heavies. 5.72% kaolin.
90.0'	94.0'	002	Kss - as above, purple clots with red rims, clay seams - 0.125" , heavies banding. 4.53% kaolin.
94.0'	98.0'	003	Kss - as above. 3.39% kaolin.
98.0'	102.0'	004	Kss - as above, faintly yellow, medium grain, very low clay content, clay clots, light grey, pliable, 1.5". 1.42% kaolin.
102.0'	106.0'	005	Kss - white, medium grain, minor illite and heavies, some clay clotting and seams, medium brown, pliable. 9.24% kaolin.
106.0'	110.0'	006	Kss - white, and yellow/brown, alternating layers, as above. 6.38% kaolin.
110.0'	115.0'	007	Kss - as above, 110.0' - 114.0' - more clay-rich, medium grain. 10.28% kaolin.
115.0'	115.5'	008	Clay - medium brown, pliable, some silica content as grey laminations. 71.37% kaolin.

115.5'	121.0'	009 Kss - very fine grain, high moisture content, minor illite and heavies, fine seams of clay, polydrill. 11.16% kaolin.
121.0'	125.0'	Kss - medium grain, light grey, minor heavies and illite.
125.0'	129.0'	Kss - as above.
129.0'	133.0'	Kss & Clay - 129.0' - 131.0' - kss - medium grain, light brown to 131.0' - 132.0', clay - competent, disc-like, greasy, medium brown, some silty sections, 132.0' - 133.0' - kss - as above.
133.0'	137.0'	Kss - fine grain, light brown, much exterior contamination.
137.0'	140.0'	Kss - medium grain, white, darkening downsection to medium grain, dried.
140.0'	145.0'	Clay - competent, disc-like, greasy, medium brown, moist.
145.0'	149.0'	Sandy Clay - competent, fissile to crumbly downsection.
149.0'	154.0'	Sandy Clay - medium grain, competent, medium brown, moist.
154.0'	158.0'	Sandy Clay - as above, some areas of clay enrichment.
158.0'	163.0'	Kss - medium grain with numerous coarser rounded clasts, smoky quartz, up to 0.5", minor heavies and illite.
163.0'	167.0'	Kss - as above.
167.0'	171.0'	Kss - medium grain, as above, numerous coarser clasts, medium grey with some light grey banding, vari-coloured silica, high amounts of heavies in bands as well as dispersed.
171.0'	175.0'	Kss - medium grain, as above, medium brown, some yellow exterior crystal growth, dried.
175.0'	180.0'	Kss - medium grain, rare coarser clasts, white, some yellow brown, contaminations, minor clay seam of 1.0" at 178.25', medium brown, minor heavies and illite.
180.0'	185.0'	Kss - medium grain, rare coarser smoky quartz, white, some minor light grey clay seams, minor



Section 89-119

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Claim No.: P 900096

Hole Length: 225.0'

Overburden Depth: 83.0'

Astronomic Azimuth:  $50^{\circ} 08' 44''$  W.  $82^{\circ} 11' 20''$  N

Location: 1850.0' at  $225^{\circ}$  to claim post no. 1

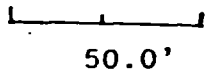
Scale: 1.0" = 50.0' or 1:600

Northing: 200 S

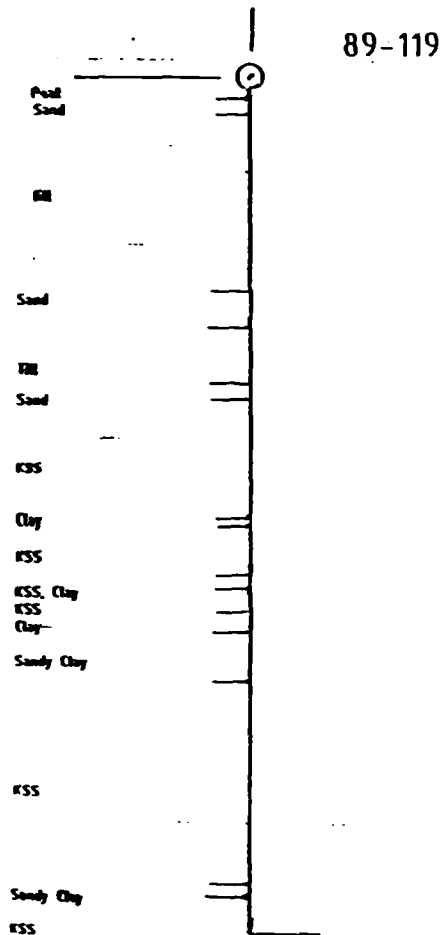
Easting: 2800 E

Dip:  $-90^{\circ}$

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Gridline 2800





Section 89-119

Claim No.: P 900096

Hole Length: 225.0'

Overburden Depth: 83.0'

Astronomic Azimuth: 50° 08' 44" W. 82° 11' 20" N

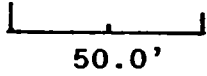
Location: 1850.0' at 225° to claim post no. 1

Scale: 1.0" = 50.0' or 1:600

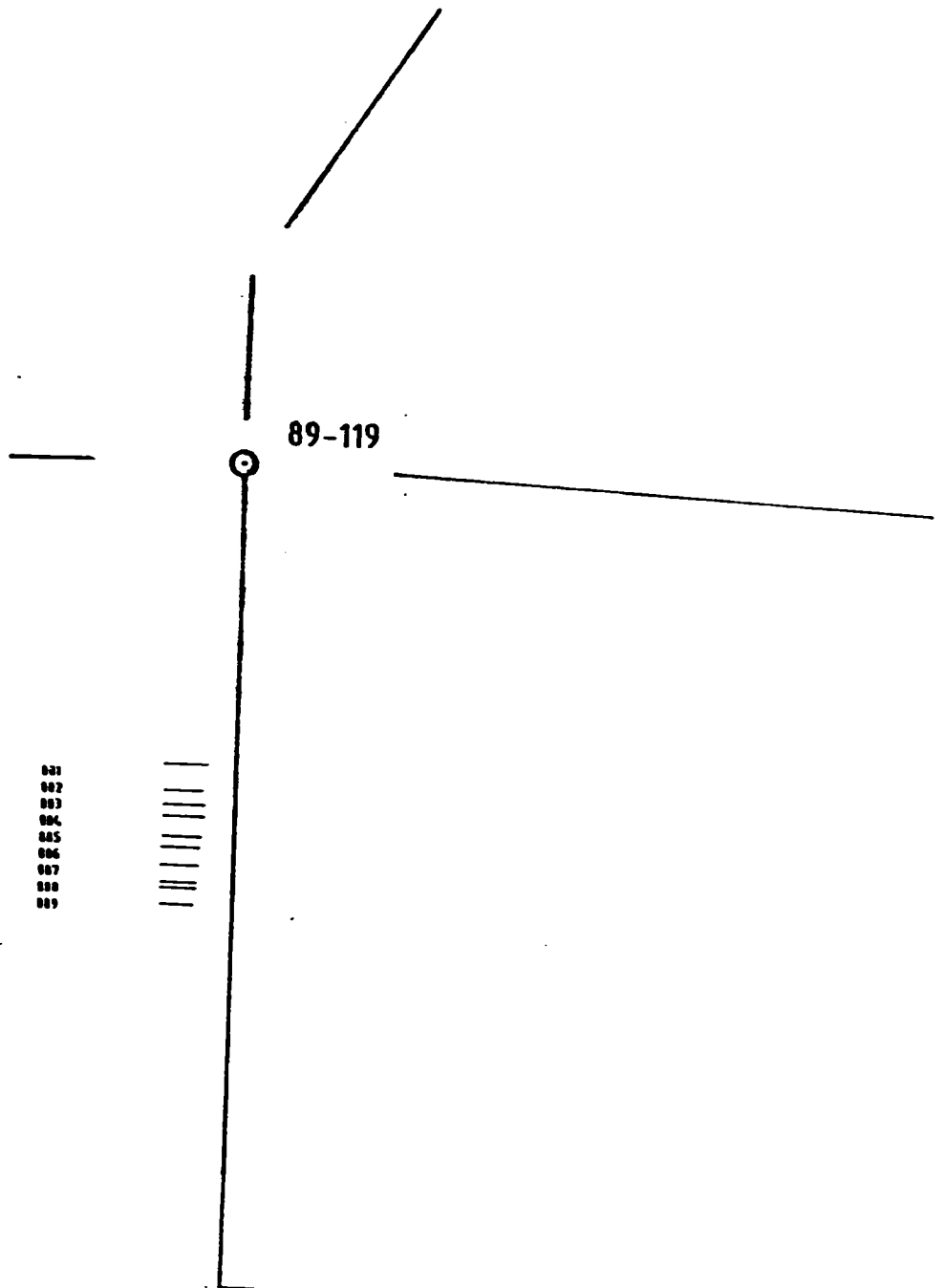
Northing: 200 S

Easting: 2800 E

Dip: -90°



Gridline 2800



000100

ROTARY DRILL HOLE RECORD

Drilling Started: Mar. 17, 1989  
 Drilling Finished: Mar. 17, 1989  
 Drilling Co.: Midwest  
 Dip: -90°  
 Hole Length: 251.0'  
 Overburden Depth: 82.5'  
 Claim No.: P 900096  
 Easting: 3000 E  
 Northing: 010 S  
 Azimuth: 50° 08' 49" N, 82° 11' 11" W  
 Location: 950.0' at 223° To Claim Post No. 1  
 Property: Kipling

Logged By: A. Casselman  
 Logged: May 3, 1989  
 Core Size: 3.5"  
 Core Storage:  
 Mineral Research Canada  
 R. R. # 2  
 Parry Sound, ON  
 P2A 2W8  
 Hole No.: 89-120

SUMMARY

From	To	Description
0.0'	12.0'	Peat
12.0'	14.0'	Sand
14.0'	70.0'	Glacial Sandy Clay Till
70.0'	83.5'	Sand - Overburden - Pleistocene
82.5'	90.0'	Kaolin Silica Sand (Kss) Cretaceous
90.0'	91.5'	Glacial Clay Till
91.5'	93.0'	Kss
93.0'	99.0'	Clay
99.0'	126.0'	Kss
126.0'	133.5'	Clay
133.5'	153.0'	Kss
153.0'	161.0'	Clay
161.0'	166.0'	Sandy Clay
166.0'	251.0'	Kss

RECEIVED  
 APR 26 1995  
 MINING LANDS BRANCH

2.15955

MINING LANDS BRANCH  
 A. Casselman  
 Jan 24, 1995  
 DATE

EOH - 251.0'

Detail Log - 89-120

From	To	Sample No.	Description
0.0'	12.0'		Peat
12.0'	14.0'		Sand
14.0'	70.0'		Glacial Sandy Clay Till - medium grain, dark brown, 4.0" Precambrian clasts.
70.0'	83.5'		Sand
82.5'	85.0'	051	Kss - dark grey, poor quality, medium grain, some lighter patches. 9.01% kaolin.
85.0'	90.0'	052	Kss - medium grain, medium grey, grey pliable 1.0" clay seam at 89.0' - purple & brown seam, minor illite and heavies banding. 11.72% kaolin.
90.0'	91.5'		Glacial Material - as above.
91.5'	93.0'	053	Kss - medium grey, coarse grain. 14.76% kaolin.
93.0'	99.0'	054	Clay - sandy, buff grading into and interbedded with chocolate brown, pliable clay from 94.0' - gradationally darker, more greasy and competent to black from 94.0' - 97.5', 97.5' - 99.0' - chocolate brown. 46.38% kaolin.
99.0'	102.0'	055	Kss - coarse and medium grain alternating units, white, minor illite and heavies. 8.51% kaolin.
102.0'	106.0'	056	Kss - as above. 7.92% kaolin
106.0'	110.0'	057	Kss - as above, light grey clay clots pliable - 0.5", dark brown seams, 109.0' - 110.0' - medium brown. 15.06% kaolin.
110.0'	116.0'	058	Kss - fine grain, white, minor illite and heavies. 8.89% kaolin.
116.0'	121.0'	059	Kss - as above, convolute heavies banding. 8.25% kaolin.
121.0'	126.0'		Kss - medium grain, white, pink/purple mould,

		exterior crystal growth, entire hole dried.
126.0'	133.5'	Clay - competent, disc-like, some silty content, medium brown, minor illite, exterior kss contamination.
133.5'	136.0'	Kss - fine grain, white.
136.0'	141.0'	Kss - medium grain, white.
141.0'	146.0'	Kss - as above.
146.0'	153.0'	Kss - coarse grain in a medium grain matrix, light brown, vari-coloured silica, 146.0' - 149.0', 149.0' - 151.0' - fine grain with a garnetiferous seam & 2 clasts of 1.5" faceted garnet & silica - medium grain, as at 89-30 & 92-4, seam at 150.5' - also clay-enrichment at lower contact (Lakefield Research report July 1993 states inhomogeneity of grains & multicomponent mineral aggregates).
153.0'	156.0'	Clay - competent, medium brown, yellow mottled, carbonaceous.
156.0'	161.0'	Clay - silty, illitic, grading to buff sandy clay, competent, fissile grading to buff clay.
161.0'	166.0'	Sandy Clay - as above, pink/purple mould spotting.
166.0'	171.0'	Kss - medium grain, white, minor heavies.
171.0'	176.0'	Kss - as above.
176.0'	181.0'	Kss - medium grain, rare coarser sub-rounded smoky quartz, light grey, moist, minor illite and heavies.
181.0'	186.0'	Kss - coarse grain in a medium grain matrix, light grey.
186.0'	191.0'	Kss - as above.
191.0'	196.0'	Kss - coarse grain in a medium grain matrix, vari-coloured silica, light grey.
196.0'	201.0'	Kss - medium grain, white.
201.0'	206.0'	Kss - medium grain, white, as above.
206.0'	211.0'	Kss - as above.
211.0'	216.0'	Kss - as above.

216.0' 221.0' Kss - coarse grain in a medium grain matrix,  
light brown.

221.0' 226.0' Kss - medium grain with frequent coarse clasts,  
light brown.

226.0' 231.0' Kss - as above.

231.0' 236.0' Kss - medium grain, light grey, as above.

236.0' 241.0' Kss - as above.

241.0' 246.0' Kss - coarse grain, light grey.

246.0' 251.0' Kss - as above.

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EOH - 251.0'

Section 89-120

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Claim No.: P 900096

Hole Length: 251.0'

Overburden Depth: 82.5'

Astronomic Azimuth: 50° 08' 49" N, 82° 11' 11" W

Location: 950.0' at 223° to claim post no. 1

Scale: 1.0" = 50.0' or 1:600

Northing: 010 S

Easting: 3000 E

Dip: -90°

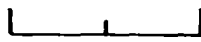
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50.0'

Gridline 3000

Section 89-120

Claim No.: P 900096  
Hole Length: 251.0'  
Overburden Depth: 82.5'  
Astronomic Azimuth: 50° 08' 49" W. 82° 11' 11" N  
Location: 950.0' at 223° to claim post no. 1  
Scale: 1.0" = 50.0' or 1:600  
Northing: 010 S  
Easting: 3000 E  
Dip: -90°



50.0'

Gridline 3000

ELEV.

89-120

Peat

Sand

TM

Sand

Kss

TM

Kss

Clay

Kss

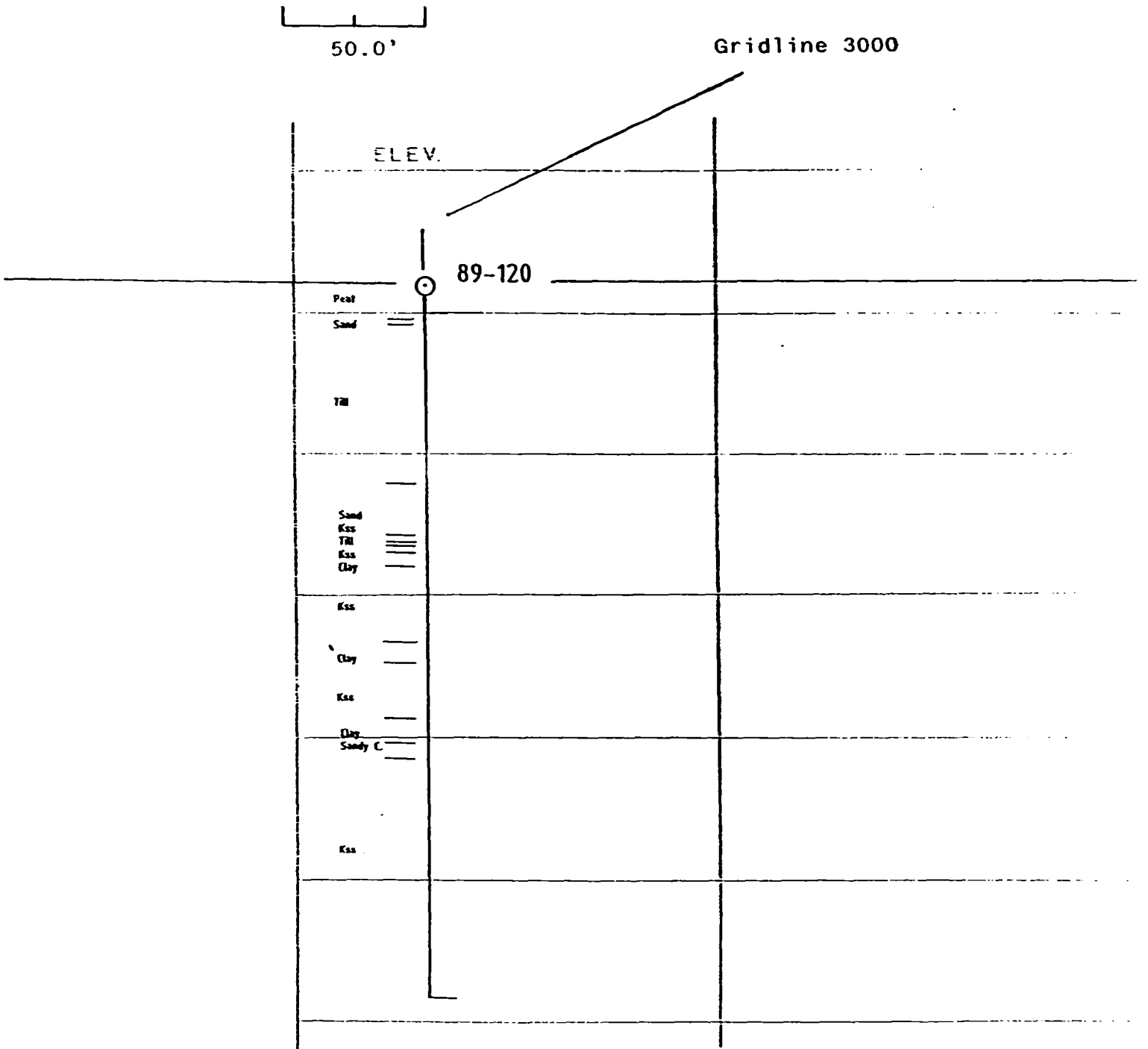
Clay

Kss

Clay

Sandy C.

Kss



Section 89-120

Claim No.: P 900096

Hole Length: 251.0'

Overburden Depth: 82.5'

Astronomic Azimuth:  $50^{\circ} 08' 49''$  N,  $82^{\circ} 11' 11''$  W

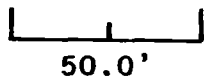
Location: 950.0' at  $223^{\circ}$  to claim post no. 1

Scale: 1.0" = 50.0' or 1:600

Northing: 010 S

Easting: 3000 E

Dip:  $-90^{\circ}$



Gridline 3000

89-120





000100

ROTARY DRILL HOLE RECORD

Drilling Started: Feb. 12, 1989  
 Drilling Finished: Feb. 12, 1989  
 Drilling Co.: Midwest  
 Dip: -90°  
 Hole Length: 150.0'  
 Overburden Depth: 111.0'  
 Claim No.: P 1089038  
 Easting: 11800 E  
 Northing: 800 N  
 Azimuth: 50° 09' 12" N, 82° 02' 56" W  
 Location: 1150.0' at 269° To Claim Post No. 1  
 Property: 89-212

Logged By: A. Casselman  
 Logged: April 6, 1989  
 Core Size: 3.5"  
 Core Storage:  
 Mineral Research Canada  
 R. R. # 2  
 Parry Sound, ON  
 P2A 2W8  
 Hole No.: 89-212

SUMMARY

From	To	Description
0.0'	4.75'	Peat
4.75'	47.0'	Glacial Clay Till
47.0'	54.25'	Sand
54.25'	57.0'	Glacial Clay Till
57.0'	73.0'	Sand
73.0'	94.0'	Glacial Clay Till
94.0'	107.0'	Sand
107.0'	111.0'	Glacial Clay Till - Overburden - Pleistocene
111.0'	123.0'	Clay - Cretaceous
123.0'	125.0'	Sandy Clay
125.0'	130.0'	Clay & Sandy Clay
130.0'	133.0'	Clay
133.0'	135.0'	Clay, Sandy Clay & Kss
135.0'	138.0'	Kss
138.0'	140.0'	Clay
140.0'	145.0'	Clay & Lignite
145.0'	150.0'	Clay

RECEIVED  
 APR 26 1995  
 MINING LANDS BRANCH

2.15955

MINERAL RESEARCH CANADA  
 11500 EASTING  
 800 NORTING  
 CANADA P2A2W8  
 FAX (705) 378-5123  
 DATE Jan 24 1995  
 BUS (705) 378-2415

EOH - 150.0'

Detail Log - 89-212

From	To	Sample No.	Description
0.0'	4.75'		Peat
4.75'	47.0'		Glacial Clay Till - green/grey, fine grain silt in some sections, competent, massive, 2.0" sand layer at upper contact, in silt-free sections, 10.0 - 15.0% carbonate clasts and 10.0% gneissic clasts up to 1.5".
47.0'	54.25'		Sand - green/grey, fine grain sand, numerous larger clasts (10.0 - 15.0%) throughout, generally 0.25", predominantly carbonate lithologies & 30.0% gneissic clasts.
54.25'	57.0'		Glacial Clay Till - as previous, 55.0' - 55.24' - granitic boulder.
57.0'	73.0'		Sand - green/grey, poorly sorted, medium grain, approximately 85.0% silica, remainder exotics, approximately 10.0% larger clasts.
73.0'	94.0'		Glacial Clay Till - as previous, 90.5' - 90.75' - sand seam.
94.0'	107.0'		Sand - gravel for first foot - very light green, clay-rich zone with coarse clasts up to 0.25", occasional organic layers, 103.25' - 104.0' - silty clay layer.
107.0'	111.0'		Glacial Clay Till - fissile, fine grain, yellow/brown, contact zone with Cretaceous.
111.0'	114.0'	16551	Clay - competent, fissile, light grey & yellow mottled to medium yellow to yellow/brown, highly overburden contaminated, calcareous, 67.22% kaolin.
114.0'	119.0'	16552	Clay - silica contamination is high, competent, conchoidal fracture, light grey, garnetiferous at 115.0', highly overburden contaminated, calcareous, 69.82% kaolin.
119.0'	123.0'	16553	Clay - competent, disc-like, fissile

at upper contact, light grey at 119.0',  
haematite staining, red & yellow, parted  
concentrations of overburden, calcareous,  
66.10% kaolin.

123.0'	125.0'	16554	Sandy Clay - competent, disc-like, light grey at 124.5' - 2.0" thick drill cut phaneritic sandstone, medium brown, small black crystals, very haematite stained, red on 2 sides, 53.32% kaolin.
125.0'	128.0'	16555	Clay - competent, fissile, increasing downsection, medium brown, grading to chocolate, 73.57% kaolin.
128.0'	130.0'	16556	Clay - grading to Sandy Clay - competent, disc-like with yellow laminations, sulphureous, carbonaceous and illitic material in sandy clay, sulphureous smell, exterior crystal growth, 66.05% kaolin.
130.0'	133.0'	16557	Clay - competent, fissile, chocolate brown, 73.80% kaolin.
133.0'	135.0'	16558	Clay to Sandy Clay to Kss - competent to very fissile, fine grain kss, chocolate brown, sulphureous smell, exterior crystal growth, 62.43% kaolin.
135.0'	137.0'	16559	Kss - grading to clay - competent, medium grain, chocolate brown, sulphureous smell, 23.11% kaolin.
137.0'	140.0'	16560	Clay - fissile, medium brown, with rare red laminations, some yellow haematitic staining, entire hole has much flowage from bag into box, 77.85% kaolin.
140.0'	145.0'	16561	Clay to Lignite to Clay - competent, disc-like, to fissile lignite to competent, disc-like chocolate brown to black/brown lignite to dark grey/brown with red and yellow haematitic laminations, exterior crystal growth on lignite fragments, 69.29% kaolin.
145.0'	150.0'	16562	Clay - as above, less carbonaceous and haematitic areas, much organic growth, 53.22% kaolin.

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EOH - 150.0'

Section 89-212

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Claim No.: P 1089037

Hole Length: 150.0'

Overburden Depth: 111.0'

Astronomic Azimuth: 50° 09' 12" W. 82° 02' 56" N

Location: 1150.0' at 269° to claim post no. 1

Scale: 1.0" = 50.0' or 1:600

Northing: 800 N

Easting: 11800 E

Dip: -90°

---

50.0'

Gridline 11800

Section 89-212

Claim No.: P 1089037

Hole Length: 150.0'

Overburden Depth: 111.0'

Astronomic Azimuth: 50° 09' 12" N, 82° 02' 56" W

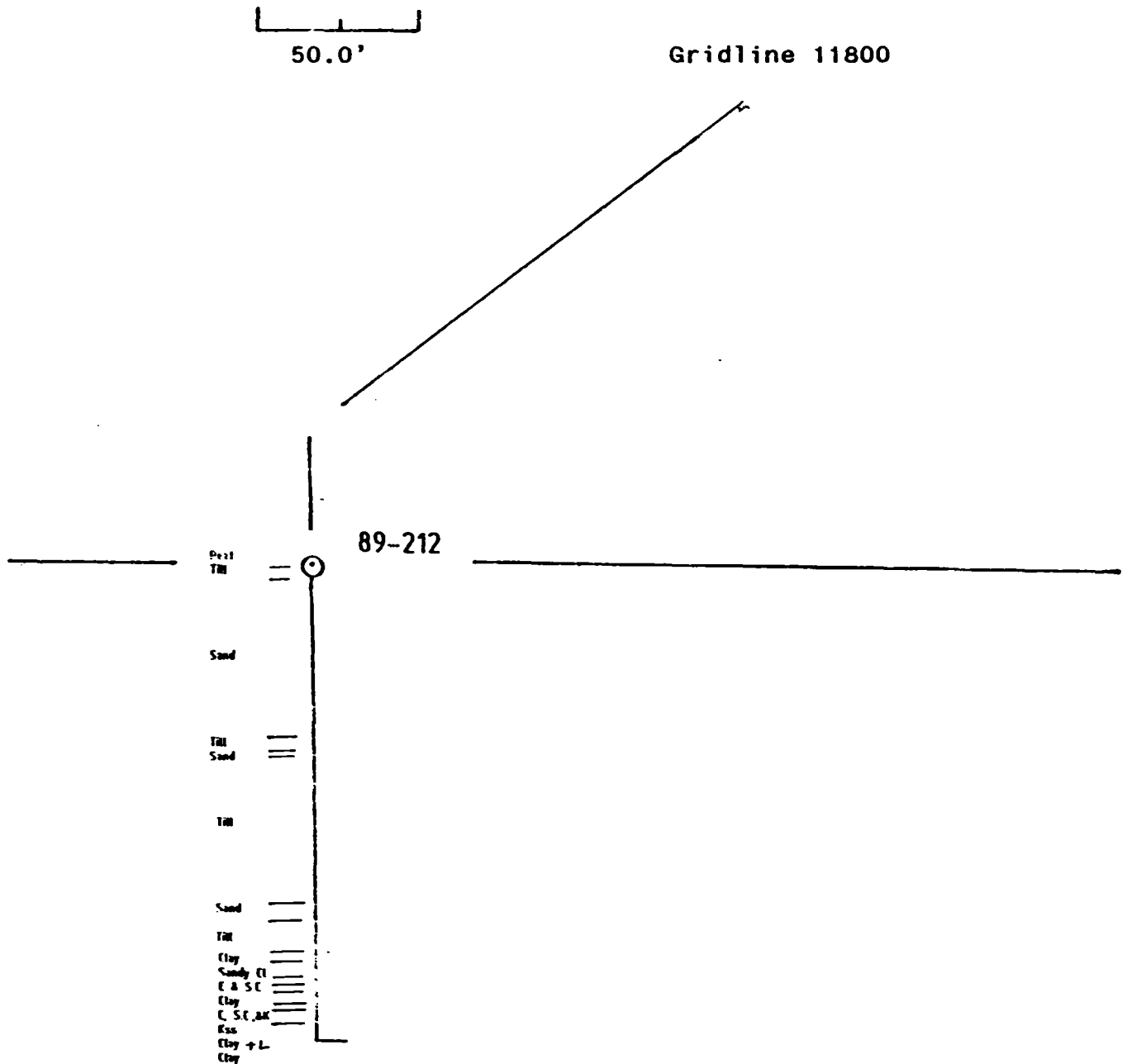
Location: 1150.0' at 269° to claim post no. 1

Scale: 1.0" = 50.0' or 1:600

Northing: 800 N

Easting: 11800 E

Dip: -90°



Section 89-212

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Claim No.: P 1089037

Hole Length: 150.0'

Overburden Depth: 111.0'

Astronomic Azimuth: 50° 09' 12" N, 82° 02' 56" W

Location: 1150.0' at 269° to claim post no. 1

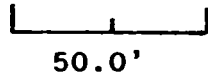
Scale: 1.0" = 50.0' or 1:600

Northing: 800 N

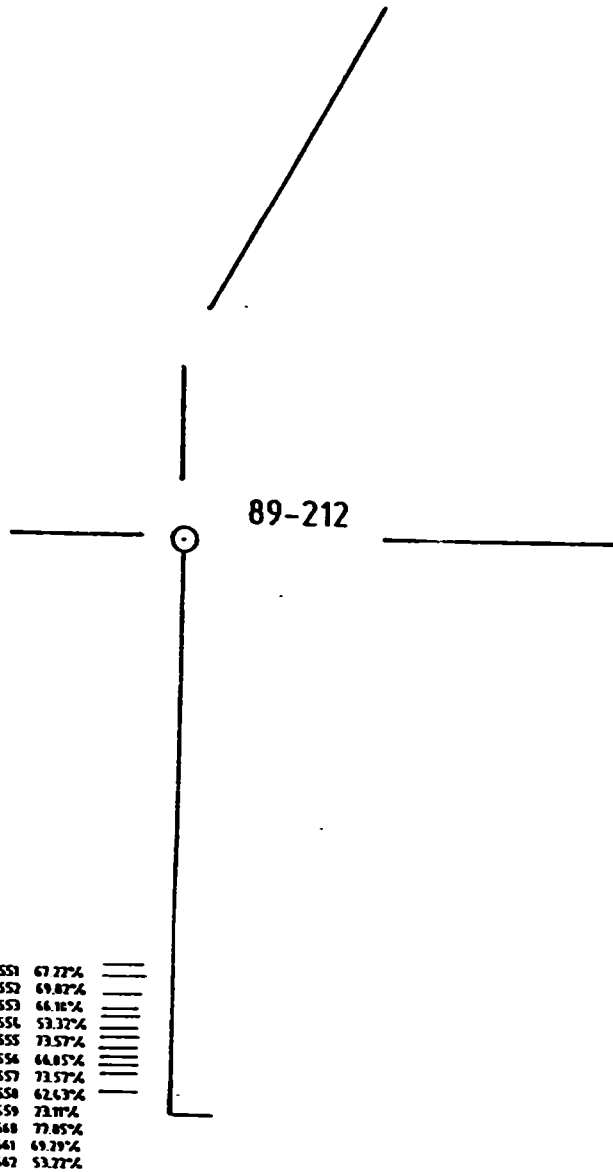
Easting: 11800 E

Dip: -90°

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Gridline 11800



000100

ROTARY DRILL HOLE RECORD

Drilling Started: Feb. 17, 1989  
Drilling Finished: Feb. 18, 1989  
Drilling Co.: Midwest  
Dip: -90°  
Hole Length: 217.0'  
Overburden Depth: 111.0'  
Claim No.: P 1089038  
Easting: 9400 E  
Northing: 800 N  
Azimuth: 50° 09' 12" N, 82° 05' 11" W  
Location: 1770.0' at 222° To Claim Post No. 1  
Property: Emerson

Logged By: A. Casselman  
Logged: Feb. 19, 1991  
Core Size: 3.5"  
Core Storage:  
Mineral Research Canada  
R. R. # 2  
Parry Sound, ON  
P2A 2W8  
Hole No.: 89-213

SUMMARY

From	To	Description
0.0'	1.0'	Peat
1.0'	106.0'	Glacial Clay Till
106.0'	111.0'	Contact Zone- Overburden/Pleistocene-Cretaceous
111.0'	124.0'	Kaolin Silica Sand (Kss) Cretaceous
124.0'	132.0'	Clay
132.0'	137.0'	Clay & Sandy Clay
137.0'	141.0'	Sandy Clay
141.0'	164.0'	Kss
164.0'	165.0'	Sandy Clay
165.0'	168.0'	Kss
168.0'	171.0'	Kss & Sandy Clay
171.0'	173.0'	Kss
173.0'	179.0'	Clay & Sandy Clay
179.0'	186.0'	Clay
186.0'	190.0'	Clay & Sandy Clay
190.0'	196.0'	Kss
196.0'	199.0'	Kss & Sandy Clay
199.0'	203.0'	Clay & Sandy Clay
203.0'	206.0'	Clay
206.0'	212.0'	Clay & Sandy Clay
212.0'	214.0'	Clay
214.0'	217.0'	Sandy Clay

RECEIVED  
APR 26 1995  
MINING LANDS BRANCH

2.15955

MINERAL RESEARCH  
A. Casselman  
Jan 24, 1994  
AS (705) 733-1125  
BCS (705) 375-2416  
DATE

EOH - 217.0'

Detail Log - 89-213

From	To	Sample No.	Description
0.0'	1.0'		Peat
1.0'	106.0'		Glacial Clay Till - competent, calcareous, green/brown, 1.0' - 9.0' - yellow/brown and from 16.0 - 17.0' yellow/brown, rare (10.0%) gneissic or (3.0 - 5.0%) carbonate clast up to 0.5", some silty sections.
106.0'	111.0'		Contact Zone - 106.0' - 109.0' - Kss contact - 109.0' - 111.0' - kss - medium grain, yellow/brown, poor quality, containing a 1.0" fine grain, dark brown, low density sub-rounded clast, 106.0' - 107.0' - chocolate brown, with pink zeolite-like alterational pockets, 107.0' - 109.0' - medium grey, high amounts if amphibole clasts.
111.0'	116.0'	15651	Kss - medium grain, grading to coarse grain, medium grey at upper contact grading to white darker again at lower contact.
116.0'	124.5'	15652	Kss - coarse grain, light brown, lower contact medium grey.
124.5'	126.0'	15653	Clay - minor silica content along fine laminations, competent, greasy, medium brown some yellow laminations, minor illite, sulphureous.
126.0'	132.0'	15654	Clay - competent, pliable, chocolate brown, with lighter laminations, carbonaceous.
132.0'	137.0'	15655	Clay & Sandy Clay - interbedded, competent, fine grain, chocolate brown sandy clay interbedded with chocolate brown clay as above.
137.0'	139.0'	15656	Sandy Clay - lighter areas contain less clay, pliable, fine grain, chocolate brown, and light brown interbedded, carbonaceous, high percentage illite.
139.0'	141.0'	15657	Sandy Clay - as above.
141.0'	144.0'	15658	Kss - medium grain, yellow and black laminated, carbonaceous, illite,



extremely high percentage illite.

144.0'	148.0'	15659	Kss - medium grain, yellow black and medium brown laminations, high illite and sulphureous smell.
148.0'	151.0'	15660	Kss - as above, more brown.
151.0'	156.0'	15661	Kss - one area of Sandy Clay at 155.0' - 4.0" - medium brown, with large well rounded smoky quartz, kss - medium grain, medium brown.
156.0'	160.0'	15662	Kss - low clay content, medium grain, light brown, large percentage heavies.
160.0'	164.0'	15663	Kss - medium grain, coarsening downsection, light brown, darkening downsection.
164.0'	165.0'	15664	Sandy Clay - pliable, fine grain, medium brown and black, carbonaceous.
165.0'	168.0'	15665	Kss - fine grain grading to medium grain, light brown, darkening downsection to dark brown.
168.0'	171.0'	15666	Kss & Sandy Clay - interbedded, sandy clay - pliable, medium grain, kss both medium brown carbonaceous and illite material in sandy clay.
171.0'	173.0'	15667	Kss - high clay content, medium grain, light brown, minor illite.
173.0'	176.0'	15668	Clay & Sandy Clay - interbedded - competent, disc-like, fine grain, sandy clay - medium brown, carbonaceous, large pieces horizontally bedded but randomly oriented.
176.0'	179.0'	15669	Sandy Clay - grading to clay - pliable, chocolate brown, some darker areas, carbonaceous material in clay, high illite in sandy clay.
179.0'	183.0'	15670	Clay - competent, disc-like, greasy, chocolate brown grading to black, carbonaceous.
183.0'	186.0'	15671	Clay - competent, disc-like, chocolate brown, carbonaceous, large competent fibrous pieces.
186.0'	190.0'	15672	Clay & Sandy Clay - gradational from clay

to sandy clay near 188.0' - pliable, fine grain, sandy clay, gradational from chocolate brown to light brown, both carbonaceous.

- 190.0' 193.0' 15673 Kss - clay-rich grading to clay-poor, medium grain, chocolate brown grading downsection to medium brown, carbonaceous, high percentage illite lessening downsection.
- 193.0' 196.0' 15674 Kss - medium grain, dark grey.
- 196.0' 199.0' 15675 Kss & Sandy Clay - kss - grading to sandy clay near 197.5', pliable sandy clay, kss - fining downsection to fine grain, chocolate brown, carbonaceous seams as well as fragments, minor illite and sulphureous smell.
- 199.0' 203.0' 15676 Clay & Sandy Clay - sandy clay grading to clay, competent grading to pliable, fine grain, sandy clay, medium brown grading to chocolate brown, carbonaceous areas.
- 203.0' 206.0' 15677 Clay - some silty laminations, competent, disc-like, chocolate brown with lighter laminations.
- 206.0' 212.0' 15678 Clay & Sandy Clay - clay grading to sandy clay, pliable, grading to disc-like, competent fine grain sandy clay, chocolate brown grading to buff to chocolate brown to buff sandy clay to buff and red mottled to buff and chocolate laminations, minor illite in sandy clay.
- 212.0' 214.0' 15679 Clay - pliable, non-competent, chocolate brown, some yellow clots, large carbonaceous fragments.
- 214.0' 217.0' 15680 Sandy Clay - competent, disc-like, fine grain, chocolate brown, carbonaceous material.

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EOH - 217.0'

Section 89-213

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Claim No.: P 1089038

Hole Length: 217.0'

Overburden Depth: 111.0'

Astronomic Azimuth: 50° 09' 12" N, 82° 05' 11" N

Location: 1770.0' at 222° to claim post no. 1

Scale: 1.0" = 50.0' or 1:600

Northing: 800 N

Easting: 9400 E

Dip: -90°

---

50.0'

Gridline 9400

Section 89-213

Claim No.: P 1089038  
Hole Length: 217.0'  
Overburden Depth: 111.0'  
Astronomic Azimuth:  $50^{\circ} 09' 12''$  W.  $82^{\circ} 05' 11''$  N  
Location: 1770.0' at  $222^{\circ}$  to claim post no. 1  
Scale: 1.0" = 50.0' or 1:600  
Northing: 800 N  
Easting: 9400 E  
Dip:  $-90^{\circ}$



50.0'

Gridline 9400



89-213

Post

TM

Contract Zone  
Kas  
Clay  
Clay & Sandy C.  
Sandy Clay  
Kas  
Kas & Sandy Clay  
Kas  
Clay & Sandy Clay  
Clay  
Clay & Sandy Clay  
Kas  
Kas & Sandy C.  
Clay & Sandy C.  
Clay  
Clay & Sandy Clay  
Clay  
Sandy Clay

Section 89-213

Claim No.: P 1089038

Hole Length: 217.0'

Overburden Depth: 111.0'

Astronomic Azimuth:  $50^{\circ} 09' 12''$  W.  $82^{\circ} 05' 11''$  N

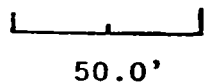
Location: 1770.0' at  $222^{\circ}$  to claim post no. 1

Scale: 1.0" = 50.0' or 1:600

Northing: 800 N

Easting: 9400 E

Dip:  $-90^{\circ}$



Gridline 9400

89-213

15451  
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PORTER PINE MINING DIVISION  
SCALE 100 FEET TO AN INCH

NKO 26/85 MAY 22 RE-OPENED JULY 15/85

Mineral Surface Rights withdrawn  
from Adams Creek, May 1984, NK 26/85

2.15955

400' Surface rights reservation around all lakes and rivers.

Areas withdrawn from staking under Section  
43 of the Mining Act, RSO 1970  
Order No. File Date Disposition

RECEIVED  
APR 26 1995  
MINING LANDS BRANCH

**LEGEND**

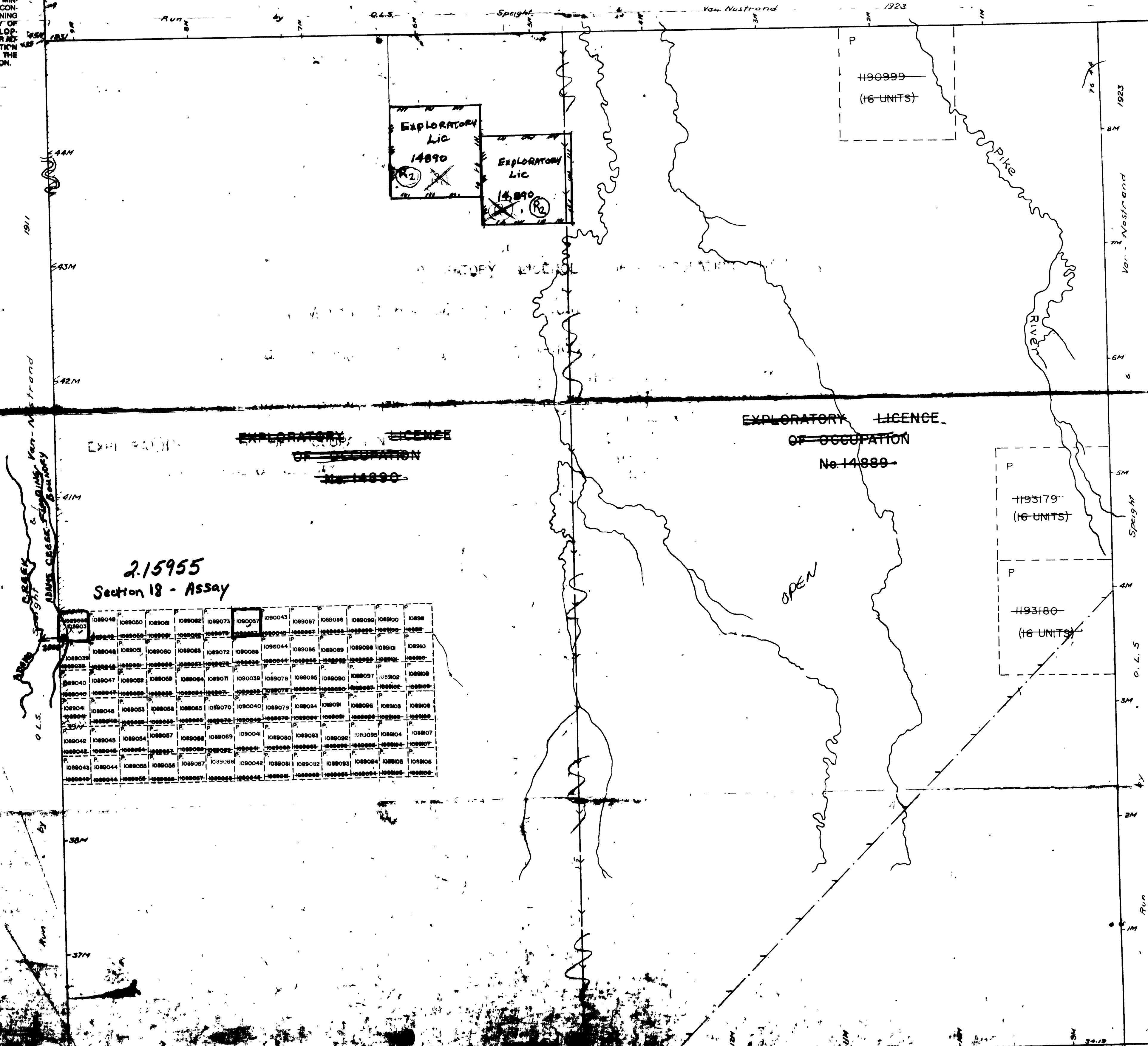
CANCELLED  
 PATENTED LAND  
 CROWN LAND SALE  
 LEASES  
 LOCATED LAND  
 LICENSE OF OCCUPATION  
 MINING RIGHTS ONLY  
 SURFACE RIGHTS ONLY

G  
 P  
 CS  
 L  
 LOC  
 L.O.  
 M.R.O.  
 S.R.O.

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 RECORDS, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

FLOODING RIGHTS RESERVED TO 2000 FT EACH SIDE OF CENTRE LINE OF ADAMS CREEK TO ONTARIO HYDRO

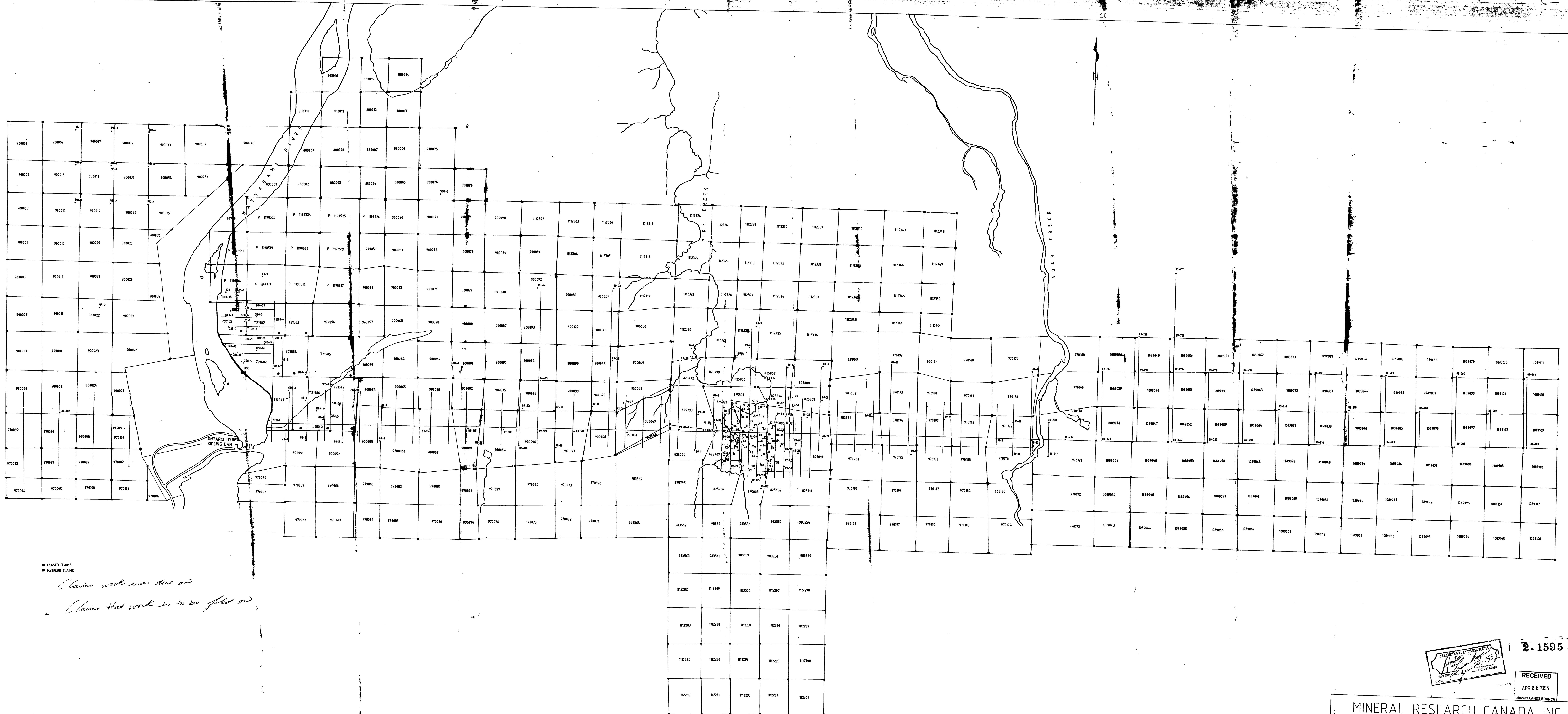
HECLA



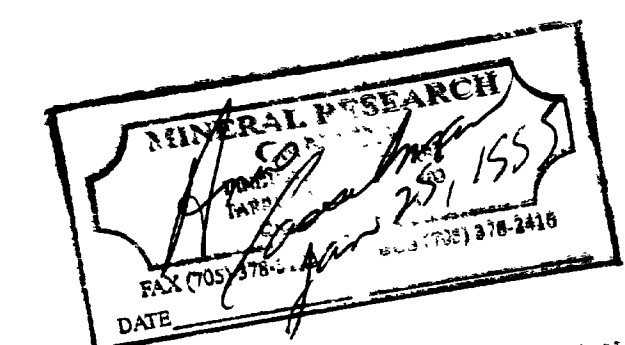
2.15955  
Section 18 - Assay

108904	108905	108906	108907	108908	108909	108910	108911	108912	108913	108914	108915	108916	108917	108918	108919	108920	108921	108922	108923	108924	108925	108926	108927	108928	108929	108930	108931	108932	108933	108934	108935	108936	108937	108938	108939	108940	108941	108942	108943	108944	108945	108946	108947	108948	108949	108950	108951	108952	108953	108954	108955	108956	108957	108958	108959	108960	108961	108962	108963	108964	108965	108966	108967	108968	108969	108970	108971	108972	108973	108974	108975	108976	108977	108978	108979	108980	108981	108982	108983	108984	108985	108986	108987	108988	108989	108990	108991	108992	108993	108994	108995	108996	108997	108998	108999	109000
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● LEASED CLAIMS  
 ■ PATENTED CLAIMS  
 Claims work was done on  
 Claims that work is to be filed on



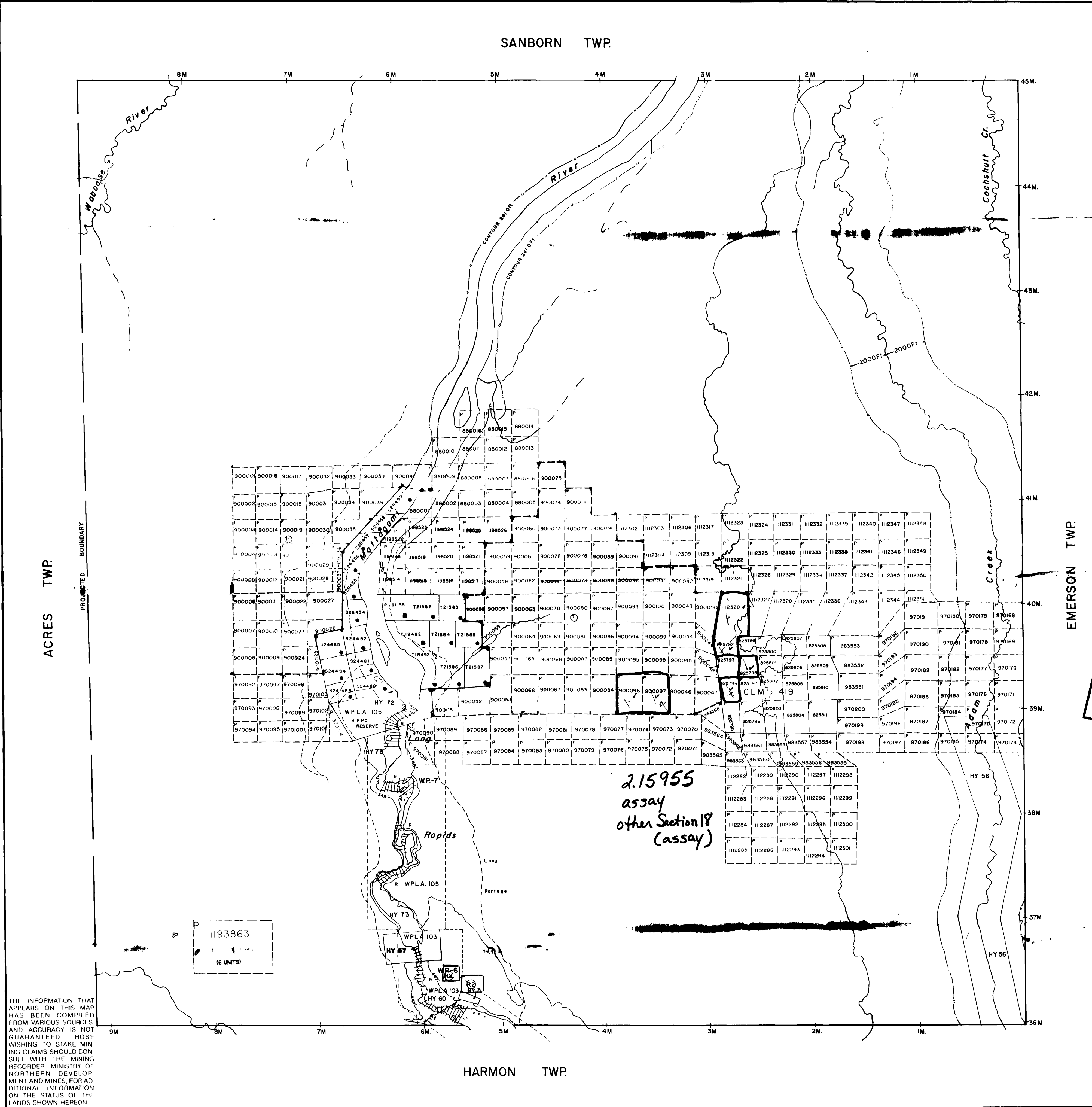
2.15955

RECEIVED  
 APR 26 1995  
 MINING LANDS BRANCH

MINERAL RESEARCH CANADA INC.

DRILL HOLE PLAN  
*Relational filing map*

SCALE 1:12000 1"=1000 DRAWING NO. DATE: JULY 1989



**LEGEND**

HIGHWAY AND ROUTE No	
OTHER ROADS	
TRAILS	
SURVEYED LINES	
TOWNSHIPS, 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	
TRANSVERSE 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	
LICENCE OF OCCUPATION	
ORDER-IN-COUNCIL	
RESERVATION	
CANCELLED	
SAND & GRAVEL	

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1912, VESTED IN ORIGINAL PATENTEES BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1

**NOTES**

FLOODING RESERVATION TO CONTOUR ELEVATION 241.0 FT FROM GRAND RAPIDS TO TAILWATER OF KIPLING G.S.T. RESERVED FOR ONTARIO HYDRO.

FLOODING RESERVATION ON ADAM CREEK EXTENDED TO 2000' EACH SIDE OF CENTERLINE OF CREEK, RESERVED FOR ONTARIO HYDRO.

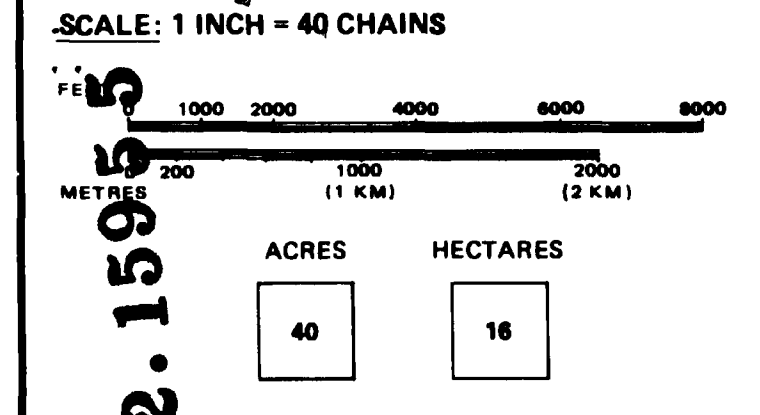
**AREAS WITHDRAWN FROM DISPOSITION**

Description	Order No	Date	Disposition	File
M.R.O. - MINING RIGHTS ONLY				
S.R.O. - SURFACE RIGHTS ONLY				
M.+S. - MINING AND SURFACE RIGHTS				

① LAND NOT OPEN FOR STAKING, SEC. 3(1)(1) OF THE MINING ACT R.S.O. 1980

② MINING AND SURFACE RIGHTS WITHDRAWN FROM PROSPECTING, STAKING OUT, SALE OR LEASE UNDER SECTION 35 OF THE MINING ACT R.S.O. 1980 ORDER NO. W.P. 38, 94 NER DATED 94-MAY-02

RECEIVED  
MINING LANDS BRANCH  
APR 26 1995



TOWNSHIP OF  
**KIPLING**

DISTRICT  
**COCHRANE**

MINING DIVISION  
**PORCUPINE**

Ontario Ministry of Natural Resources and Mines  
Ministry of Northern Development and Mines

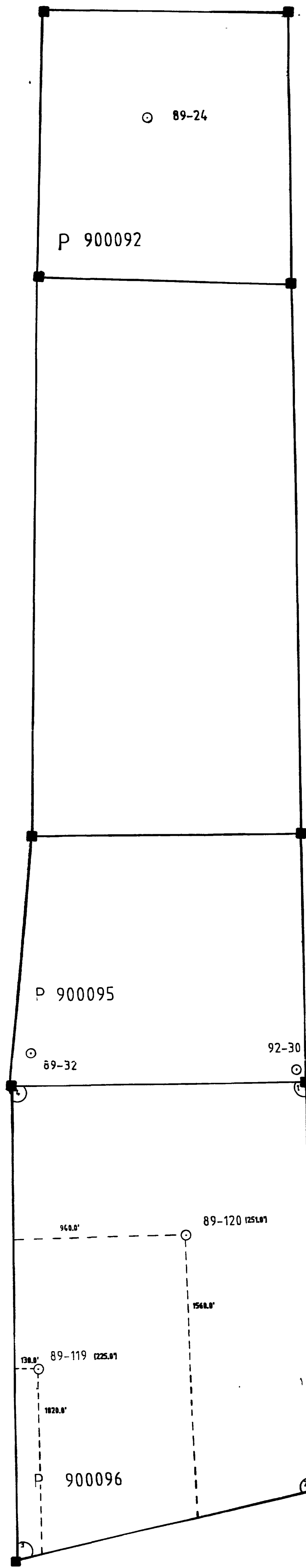
ACTIVATED AUG 18/93 BY D.C. / CHECKED BY L.K.

Date JULY 1986 Plan No. G-896

National Topographic Series

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.

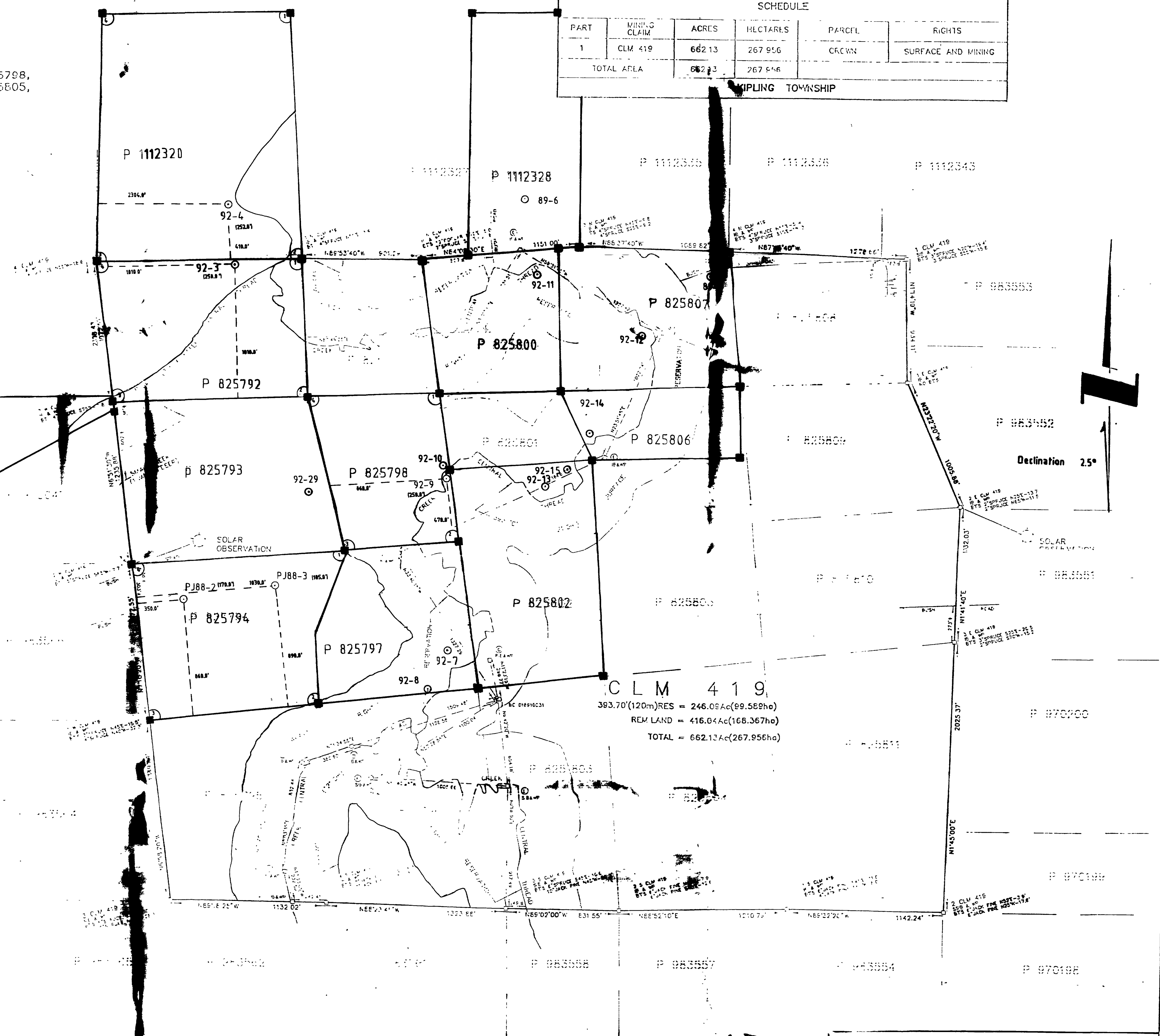




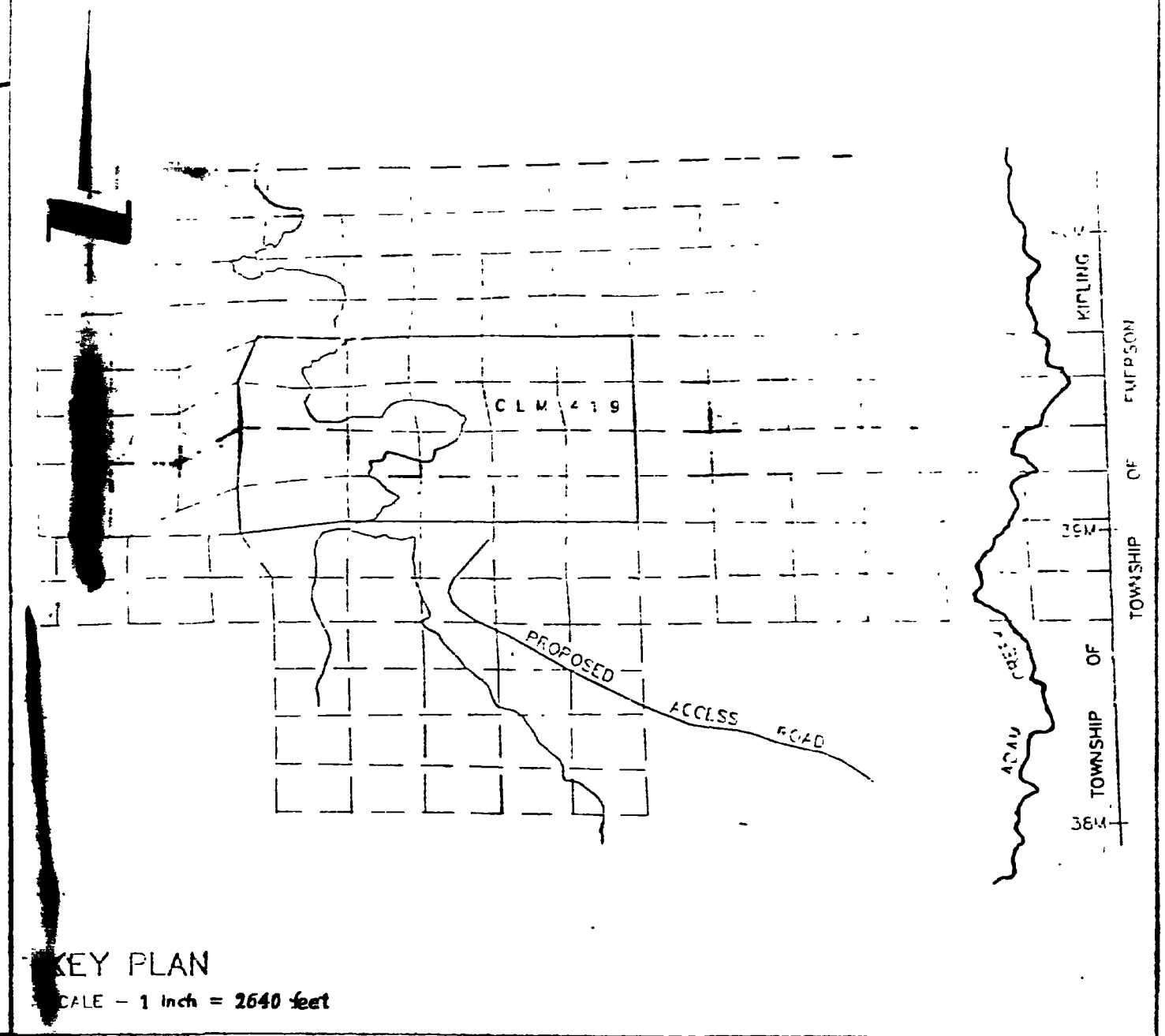
ISING OF MINING CLAIMS  
 P 825792, P 825793, P 825794, P 825795, P 825796, P 825797, P 825798,  
 P 825799, P 825800, P 825801, P 825802, P 825803, P 825804, P 825805,  
 P 825806, P 825807, P 825808, P 825809, P 825810 AND P 825811  
 TOWNSHIP OF KIPLING  
 DISTRICT OF COCHRANE  
 SCALE - 1 inch = 400 feet  
 1:4200

400.0'

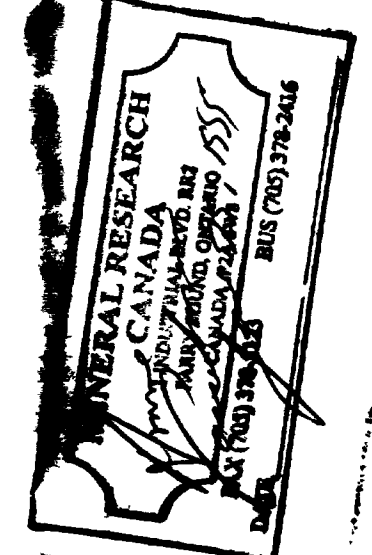
SCHEDULE				
PART	MINING CLAIM	ACRES	HECTARES	RIGHTS
1	CLM 419	662.13	267.916	SURFACE AND MINING
TOTAL AREA		662.13	267.916	



**CLM 419**  
 393.70(120m)RES = 246.05Ac(99.56ha)  
 REM LAND = 416.04Ac(168.267ha)  
 TOTAL = 662.13Ac(267.956ha)

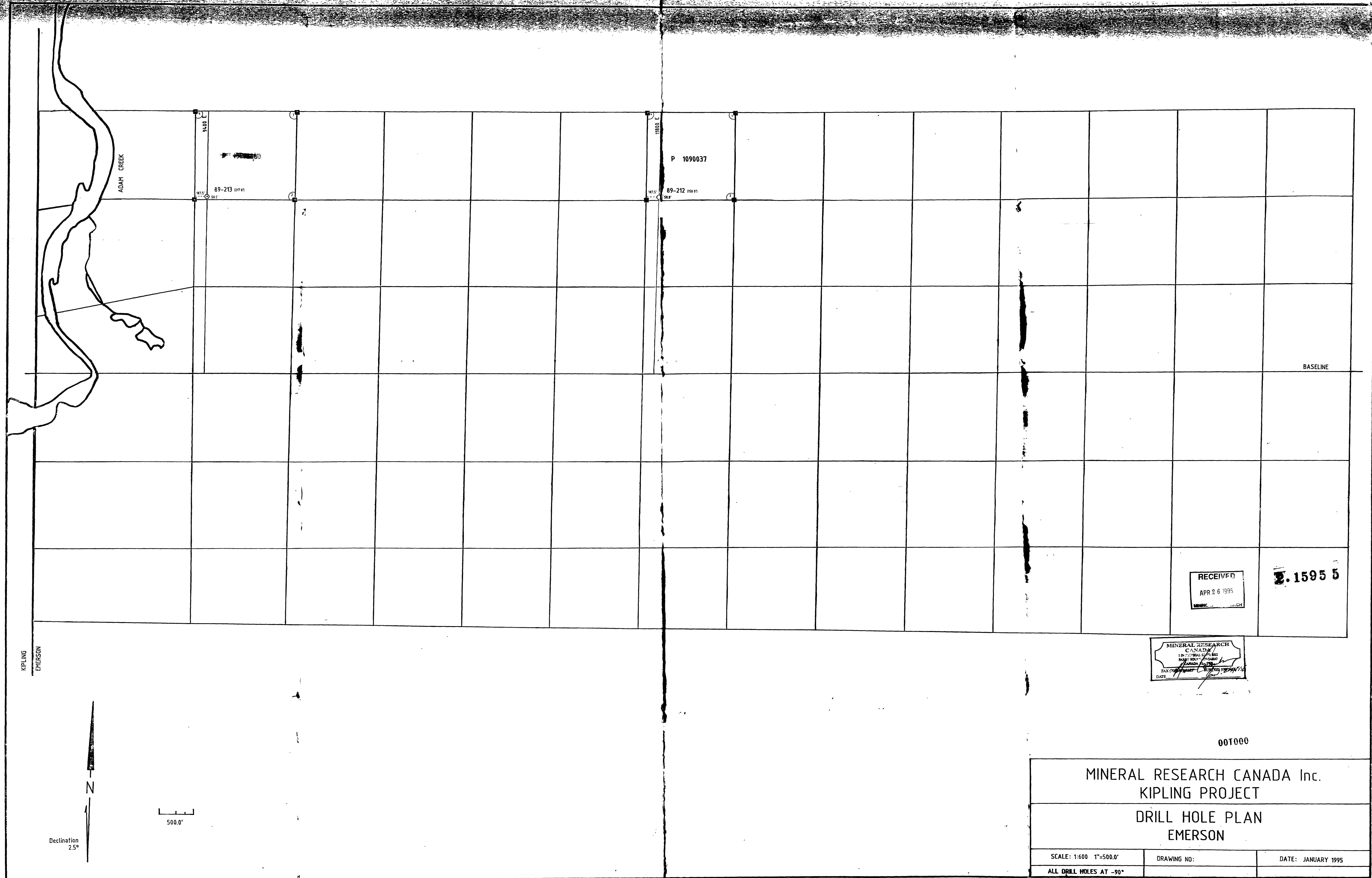


**LEGEND**  
 O DENOTES PLANTED MONUMENT (CLAM POSTS)  
 ■ DENOTES FOUND MONUMENT (CLAM POSTS)  
 ■ DENOTES 5/8 IN SQ IRON BAR 2 0 FT LONG  
 ■ DENOTES 1 IN SQ IRON BAR 4 0 FT LONG  
 ■ DENOTES BRASS CAP  
 ■ DENOTES WITNESS  
 ■ DENOTES WOODEN GUIDE POST  
 ■ DENOTES BEARING TREE  
 ■ DENOTES PLANTED  
 ■ DENOTES FOUND  
 ALL MONUMENTS HAVE BEEN VERIFIED  
 ALL DRILL HOLES ARE AT 30°



MINERAL RESEARCH CANADA Inc.  
**KIPLING DRILL PLAN**  
**2.1595 5** RECEIVED  
 APR 20 1995  
 BEARING NOTE  
 BEARINGS ARE ASTROMERIC AND ARE DERIVED FROM  
 STATION OBSERVATION AT CORNER 2E CLM 419  
 (LONGITUDE 85°06'50") AND REFERRED TO THE MERIDIAN  
 THROUGH THE CENTRE OF KIPLING TOWNSHIP  
 (LONGITUDE 82°10'30")

077-40



RECEIVED  
APR 26 1995

2.1595 5

MINERAL RESEARCH  
CANADA  
100-10000-0000  
DATE: APR 26 1995

00T000

MINERAL RESEARCH CANADA Inc.  
KIPLING PROJECT  
DRILL HOLE PLAN  
EMERSON

SCALE: 1:600 1"=500.0'	DRAWING NO:	DATE: JANUARY 1995
ALL DRILL HOLES AT -90°		

