



42C12NW0038 42C12NW0045A1 MOLSON LAKE

010

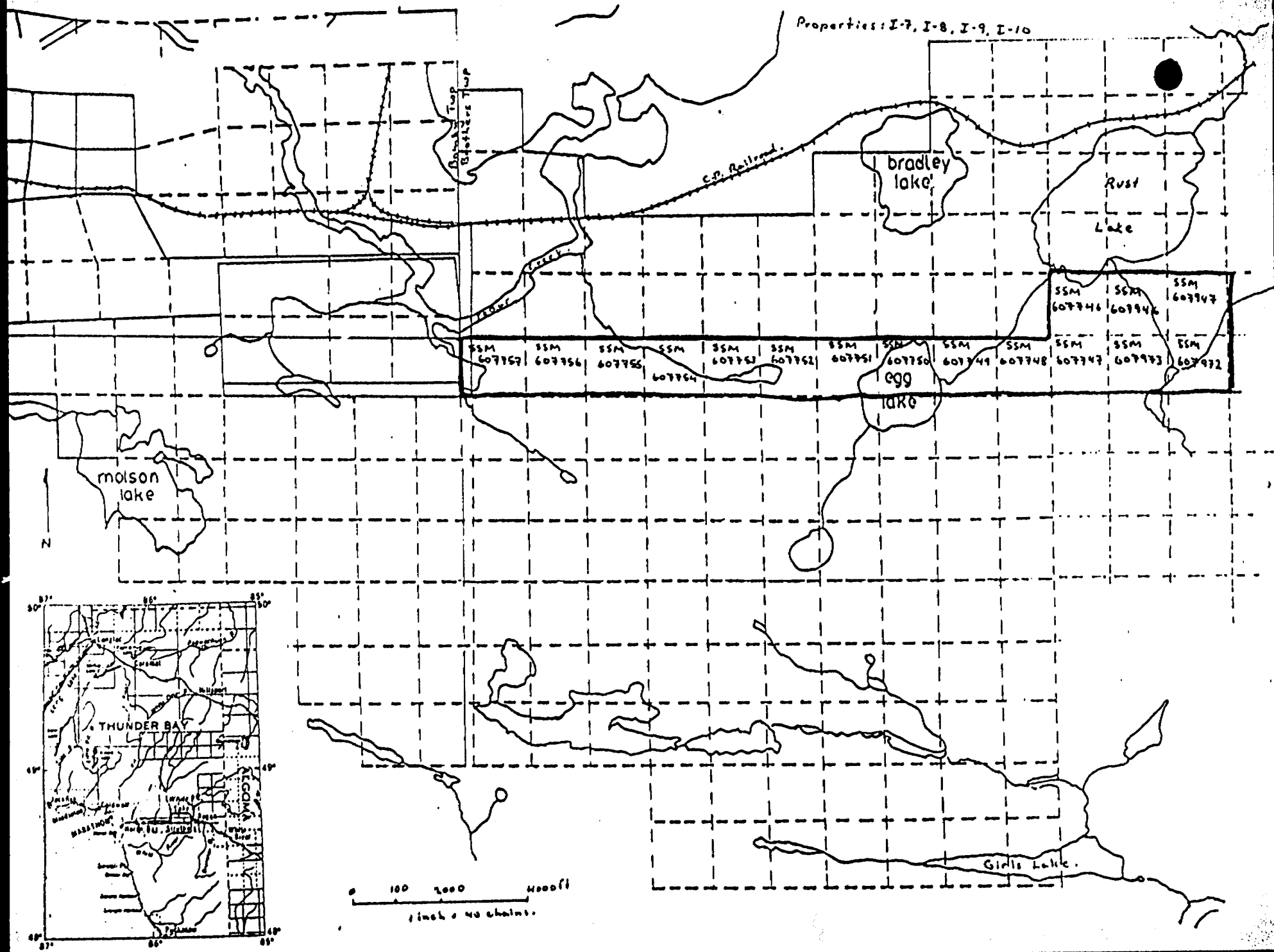
GEOLOGICAL REPORT

PROPERTIES: I-7 (south half), I-8 (south half)
I-9 (south half), I-10 (west three quarters)

MINING CLAIMS: SSM 607746
SSM 607747
SSM 607748
SSM 607749
SSM 607750
SSM 607751
SSM 607752
SSM 607753
SSM 607754
SSM 607755
SSM 607756
SSM 607757
SSM 607946
SSM 607947
SSM 607972
SSM 607973

April 1984.

Alex Motzok
Submitted by: G. A. Motzok, B.A.

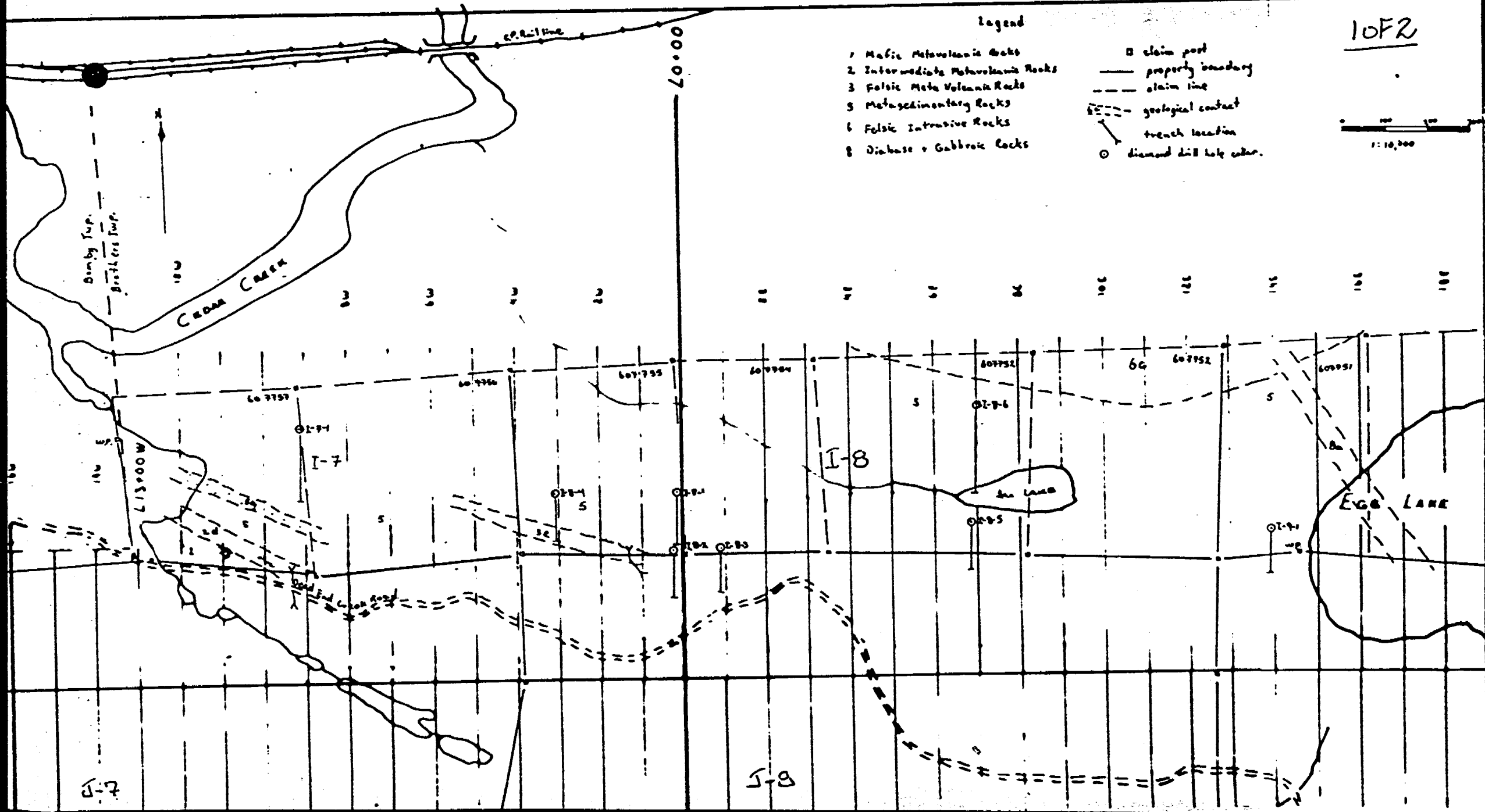
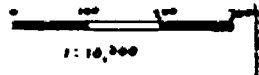


10F2

Legend

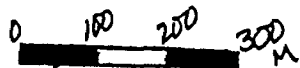
- 1 Mafic Metavolcanic Rocks
- 2 Intermediate Metavolcanic Rocks
- 3 Felsic Meta Volcanic Rocks
- 5 Metasedimentary Rocks
- 6 Felsic Intrusive Rocks
- 8 Diabase + Gabbroic Rocks

- claim post
- property boundary
- - - claim line
- - - geological contact
- ↖ trench location
- diamond drill hole center



2 OF 2

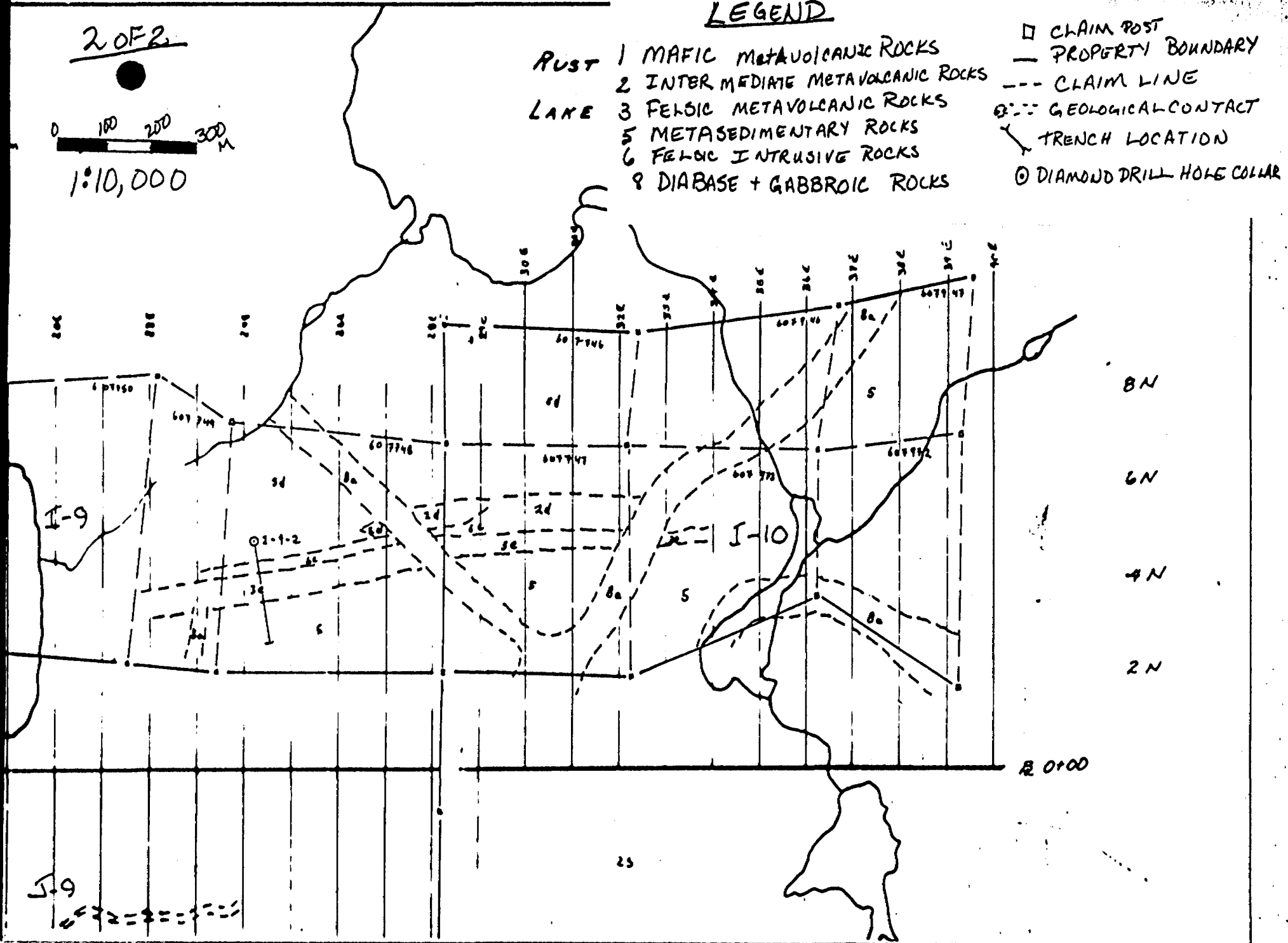
LEGEND



1:10,000

- RUST
LAKE
- 1 MAFIC METAVOLCANIC ROCKS
 - 2 INTERMEDIATE METAVOLCANIC ROCKS
 - 3 FELSIC METAVOLCANIC ROCKS
 - 5 METASEDIMENTARY ROCKS
 - 6 FELSIC INTRUSIVE ROCKS
 - 8 DIABASE + GABBROIC ROCKS

- CLAIM POST
- PROPERTY BOUNDARY
- CLAIM LINE
- GEOLOGICAL CONTACT
- ↘ TRENCH LOCATION
- DIAMOND DRILL HOLE COLLAR



LOCATION AND ACCESS

The property is located entirely in Brothers Township, Sault Ste. Marie Mining Division. It covers a continuous strip of ground which stretches from the western edge of Brothers Township to a half of a mile east of the southern shore of Rust Lake.

Access to the property is by several means. A gravel road constructed by Lac Minerals in 1982 southeast from the Struthers railroad crossing crosses the western edge of the property and lies within 400 metres of its southern boundary for about 3 kilometers.

Cedar Creed is navigable by small boats from the Trans Canada Highway. Float equipped fixed wing aircraft can land on Rust Lake which provides easy access to the eastern part of the property.

HOLDERS OF THE PROPERTY

Lac Minerals Limited
Suite 2105
Royal Bank Plaza
TORONTO, Ontario

SURVEY DATES

The property was mapped between July and August 1982.

GENERAL GEOLOGY

The property is underlain by a succession of metasedimentary and metavolcanic rocks which strike approximately east-west. Metamorphic grade is approximately upper greenschist to lower amphibolite. The rock units dip to the north. Dips vary from 32° in the west to 72° in the far north-east.

OVERBURDEN AND FOREST COVER

Pleistocene glacial cover is very extensive and bedrock outcroppings are limited to about 1% of the property. They are generally limited to ridges of more resistant rock. Low swampy areas are the norm. These are covered with sparse stunted spruce and clumps of alders. Cedar trees are rare. Higher better drained areas are covered by thicker stands of spruce, jack pine, birch, poplar and alders. The glacial cover varies from lacustrine clays in the lower areas to tills on the ridges.

STRATIGRAPHY

Geopetal determinations (although scarce) were obtained from graded bedding observed in outcrops of greywacke and arkosic wacke. These consistently indicated a younging in the rocks towards the north.

The oldest rocks are therefore mafic metavolcanics which outcrop in the south-west corner of claim SSM 607757. They consist of dark green chlorite, amphibole, feldspar schists and probably represent fine to medium grained ash tuffs and flows. This unit has a thickness of about 60 meters on surface.

It is overlain by a 240 meter thick succession of metasedimentary rocks. These consist of medium greywackes, quartzites with occasional thin amphibole carbonate bands which occur parallel to the schistosity. A band of garnetiferous metasediments outcrops in the central portion of claim SSM 607757 and the southern part of SSM 607756.

Overlying the metasediments is a 30 meter thick unit of felsic metavolcanics. These are generally well banded fine to medium grained light to medium grey colour and contain up to 2% disseminated pyrite.

This unit is interbedded with sericite schists and feldspathic wackes. The unit outcrops in the southern part of SSM 607755 and the central parts of claims SSM 607748, SSM 607747, and SSM 607973.

It is overlain in the eastern part of the property by another extensive band of metasediments. These predominantly consist of feldspathic wackes and lithic wackes with thin amphibole carbonate bands similar in composition to those of the first sedimentary unit. This unit has an apparent thickness on surface of about 600 meters.

In the west the felsic volcanics and overlying metasediments are separated by a 20 meter thick unit of granodiorite. It is equigranular, medium grained and fairly massive. This unit also contains minor conformable mafic intrusives. These are predominantly amphibolitic in composition.

All of the above units appear to have been intruded by subconformable feldspar porphyry sills. These are generally less than one meter wide and medium grey in colour. They make up only a small portion of the total thickness of their host units.

The outcrops of the Cedar Lake Pluton occur in the northern third of claims SSM 607753, SSM 607752, and SSM 607751. This intrusive is light pinkish grey in fresh surface, massive, equigranular and medium grained. It is commonly weakly magnetic and contains abundant country rock inclusions. The inclusions vary from a few centimeters to tens of meters in size. The underlying metasediments and metavolcanics appear to have been wrapped around this intrusive to some extent as strikes in these rocks change from about 100° in the west to about 70 to 80° in the east.

STRATIGRAPHY (continued)

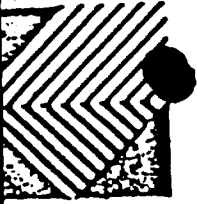
All of the above units have been intruded by dykes of mafic composition. These are generally either diabase or gabbro although the latter is the predominant. They commonly consist of medium to coarse grained intergrowths of amphibole and feldspar. They are almost always magnetic and hence easily traced with geophysical survey instruments. Although found all across the property they appear to be concentrated in the westernmost seven claims where they achieve outcrop thicknesses of up to 175 meters. Although strikes are variable north-east and north-western trends appear to be the most common.

ECONOMIC MINERALIZATION

No economic mineralization was detected on this property. Very minor molybdenite mineralization was suspected within the felsic volcanic unit on claims SSM 607747 and SSM 607748, however, assays from rock samples taken proved disappointing.

PREVIOUS WORK

Although evidence of previous work was observed on the property in the form of old claim lines and posts, no economic mineralization has been reported to the mining recorder. Assessment work in the form of geological mapping was filed on areas east and west of Egg Lake in 1950. These reports are titled the Trudeau Group and Struthers Group respectively, and were written by Trevor W. Page. Mr. Page was also the engineer in charge of much of the original Lake Superior Mining Corporation and Ollman-Williams claims.



Cedar Lake Office
Box 580,
Manitouowadge, Ontario.
P0T 2C0
(807) 822-2139

LAC

Lac Minerals Ltd.
Exploration Division

I, G. Alexander Motzok, do hereby certify that:

- i) I have graduated from the University of Western Ontario, London Ontario, with a B.A. in Geology.

- ii) I have been employed by Lac Minerals Ltd. as a Geologist since January 1982.

March 20, 1984

G.A. Motzok.



42C12NW0038 42C12NW0045A1 MOLSON LAKE

900



Ministry of Natural Resources

File _____

GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL
TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) GEOLOGICAL
Township or Area BROTHERS MAP G-603
Claim Holder(s) LAC MINERLAS LTD.
Box 580 MANITOUWADGE, Ontario POT 2C0
Survey Company LAC MINERALS LTD.
Author of Report A. Motzok B.Sc.
Address of Author Box 580 MANITOUWADGE, Ontario POT 2C0
Covering Dates of Survey July 01, 1982 to August 30, 1982
(linecutting to office)
Total Miles of Line Cut 23.060 km

MINING CLAIMS TRAVERSED
List numerically

SSM	607746	(number)
(prefix)	SSM 607747	
SSM	607748	
SSM	607749	
SSM	607750	
SSM	607751	
SSM	607752	
SSM	607753	
SSM	607754	
SSM	607755	
SSM	607756	
SSM	607757	
SSM	607946	
SSM	607947	
SSM	607972	
SSM	607973	

If space insufficient, attach list

<u>SPECIAL PROVISIONS</u> <u>CREDITS REQUESTED</u>	DAYS per claim
ENTER 40 days (includes line cutting) for first survey.	Geophysical _____ - Electromagnetic _____ - Magnetometer _____ - Radiometric _____ - Other _____
ENTER 20 days for each additional survey using same grid.	Geological <u>20</u> Geochemical _____

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: May 3 1983 SIGNATURE: Alex Motzok
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

OFFICE USE ONLY

RECEIVED

MAY 6 1983

MINING LANDS SECTION

TOTAL CLAIMS 16

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations _____ Number of Readings _____
Station interval _____ Line spacing _____
Profile scale _____
Contour interval _____

MAGNETIC

Instrument _____
Accuracy – Scale constant _____
Diurnal correction method _____
Base Station check-in interval (hours) _____
Base Station location and value _____

ELECTROMAGNETIC

Instrument _____
Coil configuration _____
Coil separation _____
Accuracy _____
Method: Fixed transmitter Shoot back In line Parallel line
Frequency _____
(specify V.L.F. station)
Parameters measured _____

GRAVITY

Instrument _____
Scale constant _____
Corrections made _____

Base station value and location _____

Elevation accuracy _____

**INDUCED POLARIZATION
RESISTIVITY**

Instrument _____
Method Time Domain Frequency Domain
Parameters – On time _____ Frequency _____
– Off time _____ Range _____
– Delay time _____
– Integration time _____
Power _____
Electrode array _____
Electrode spacing _____
Type of electrode _____

Mining Lands Section

File No 26717

Control Sheet

TYPE OF SURVEY GEOPHYSICAL
 GEOLOGICAL
 GEOCHEMICAL
 EXPENDITURE

MINING LANDS COMMENTS:

Checked:

lga. h.D.

S. Hurst

Signature of Assessor

July 9/84

Date



Report of Work
(Geophysical, Geological,
Geochemical and Expenditures)

146-84

2.6717

The Mining Act

- Instructions: - Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.
Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
- Do not use shaded areas below.

July 9

Type of Survey(s) GEOLOGICAL		Township or Area BROTHERS MAP G-603
Claim Holder(s) LAC MINERALS LTD.		Prospector's Licence No. T-664
Address P.O. Box 580 MANITOUWADGE, Ontario POT 2C0		
Survey Company LAC MINERALS LTD.	Date of Survey (from & to) 01 07 82 30 08 82	Total Miles of line Cut 23.000 Km.
Name and Address of Author (of Geo-Technical report) A. Motzok P.O. Box 580 MANITOUWADGE, Ontario POT 2C0		

Credits Requested per Each Claim in Columns at right		
Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
For each additional survey: using the same grid: Enter 20 days (for each)	Geological	20
	Geochemical	25
Man Days		
Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits		
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)					
Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
SSI:	607746				
	607747				
	607748				
	607749				
	607750				
	607751				
	607752				
	607753				
	607754				
	607755				
	607756				
	607757				
	607946				
	607947				
	607972				
	607973-J				

RECEIVED

MAY 17 1984

MINING LANDS SECTION

GAULT STC. MARIE
MINING DIV.
RECEIVED
MAY 10 1984
A.M. 7:81 9:10 11:12 1: 3:8 4:10 P.M.

See Reversed statement

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures	+	15	=	Total Days Credits
\$				

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date: **May 4/84**

Recorded Holder or Agent (Signature): *[Signature]*

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
320	May 10/84	J. St. Jules
Date Approved or Recorded	Branch Director	

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying
V.R. Venn P. Eng. P.O. Box 580 MANITOUWADGE, Ontario POT 2C0

Date Certified: **May 4/84**

Certified by (Signature): *[Signature]*

File on 551607746

1984 05 18

Your File:
Our File: 2.6717

Mrs. M.V. St. Jules
Mining Recorder
Ministry of Natural Resources
875 Queen Street East
P.O. Box 669
Sault Ste. Marie, Ontario
P6A 5N2

Dear Madam:

We have received reports and maps for a Geological Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims SSM 607746 et al in the Township of Brothers.

This material will be examined and assessed and a statement of assessment work credits will be issued.

We do not have a copy of the report of work which is normally filed with you prior to the submission of this technical data. Please forward a copy as soon as possible.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: (416) 965-6918

A. Barr:sc

cc: Lac Minerals Ltd
Box 580
Manitouwadge, Ontario
P0T 2C0



Ministry of
Natural
Resources

**Technical Assessment
Work Credits**

File
2.6717
Mining Recorder's Report of
Work No. **146-84**

Date
1984 07 24

Recorded Holder
LAC MINERALS LTD

Township or Area
BROTHERS TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical Electromagnetic _____ days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days Other _____ days Section 77 (19) See "Mining Claims Assessed" column Geological <u>20</u> days Geochemical _____ days Man days <input type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input checked="" type="checkbox"/> Ground <input checked="" type="checkbox"/> <input type="checkbox"/> Credits have been reduced because of partial coverage of claims. <input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	SSM 607746 to 749 inclusive 607754 to 757 inclusive 607946-47-72-73

Special credits under section 77 (16) for the following mining claims

<u>15 DAYS CREDIT</u>	<u>10 DAYS CREDIT</u>
SSM 607751-52-53	SSM 607750

No credits have been allowed for the following mining claims

not sufficiently covered by the survey Insufficient technical data filed

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Section 77(19) — 60.



Ministry of
Natural
Resources

Aug 8/84

1984 07 24

Your File: 146-84
Our File: 2.6717

Mrs. M.V. St. Jules
Mining Recorder
Ministry of Natural Resources
875 Queen Street East, Box 669
Sault Ste. Marie, Ontario
P6A 5N2

Dear Madam:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact Mr. R.J. Pichette at 416/965-4888.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3

rew S. Hurst:mc

Encls.

cc: Lac Minerals Ltd
P.O. Box 580
Manitouwadge, Ontario
POT 2C0

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario



Ministry of
Natural
Resources

Ontario

Notice of Intent
for Technical Reports

1984 07 24

2.6717/146-84

An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on his record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted direct to the Land Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.

1984 08 17

Your File: 146-84
Our File: 2.6717

Mrs. M.V. St. Jules
Mining Recorder
Ministry of Natural Resources
875 Queen Street East
P.O. Box 669
Sault Ste. Marie, Ontario
P6A 5N2

Dear Madam:

RE: Notice of Intent dated July 24, 1984
Geological Survey on Mining Claims
SSM 607746 et al in the Township of
Brothers

The assessment work credits as listed with the
above mentioned Notice of Intent, have been approved
as of the above date.

Please inform the recorded holder of these mining
claims and so indicate on your records.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: (416) 965-6918

S. Hurst:mc

cc: Lac Minerals Ltd
P.O. Box 580
Manitowadge, Ontario
POT 2C0

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario

cc: Resident Geologist
Sault Ste. Marie, Ontario

Enc].

2.6717

607746

✓

607946

✓

47

✓

47

✓

48

✓

72

✓

49

✓

73

✓

50

1/2

51

1/4

3

52

1/4

53

1/4

54

✓

55

✓

56

✓

57

✓

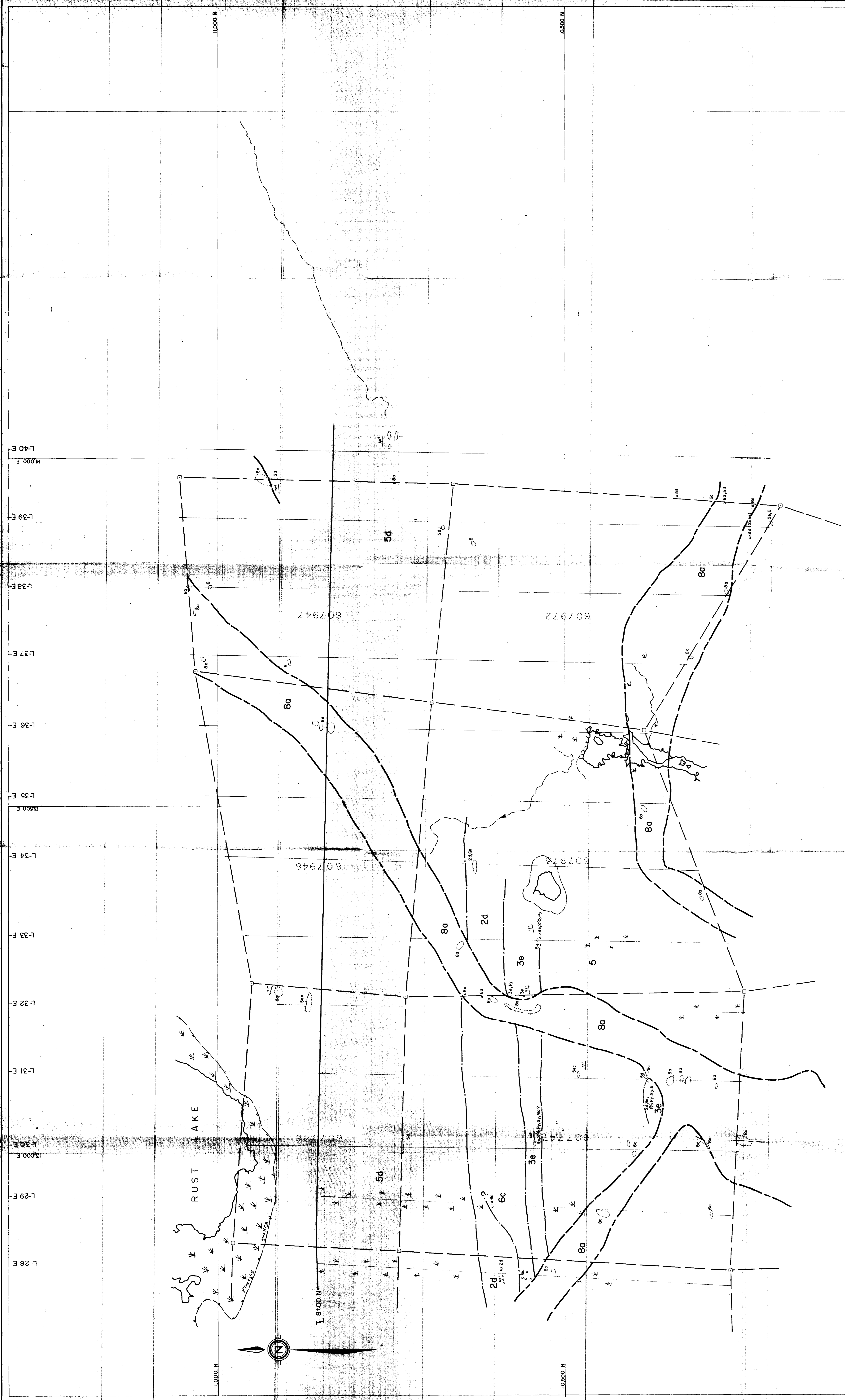


FOR ADDITIONAL

INFORMATION

SEE MAPS:

42C/12NW-0045-A1 # 1-4



H2C/12NW-0045A1 #4

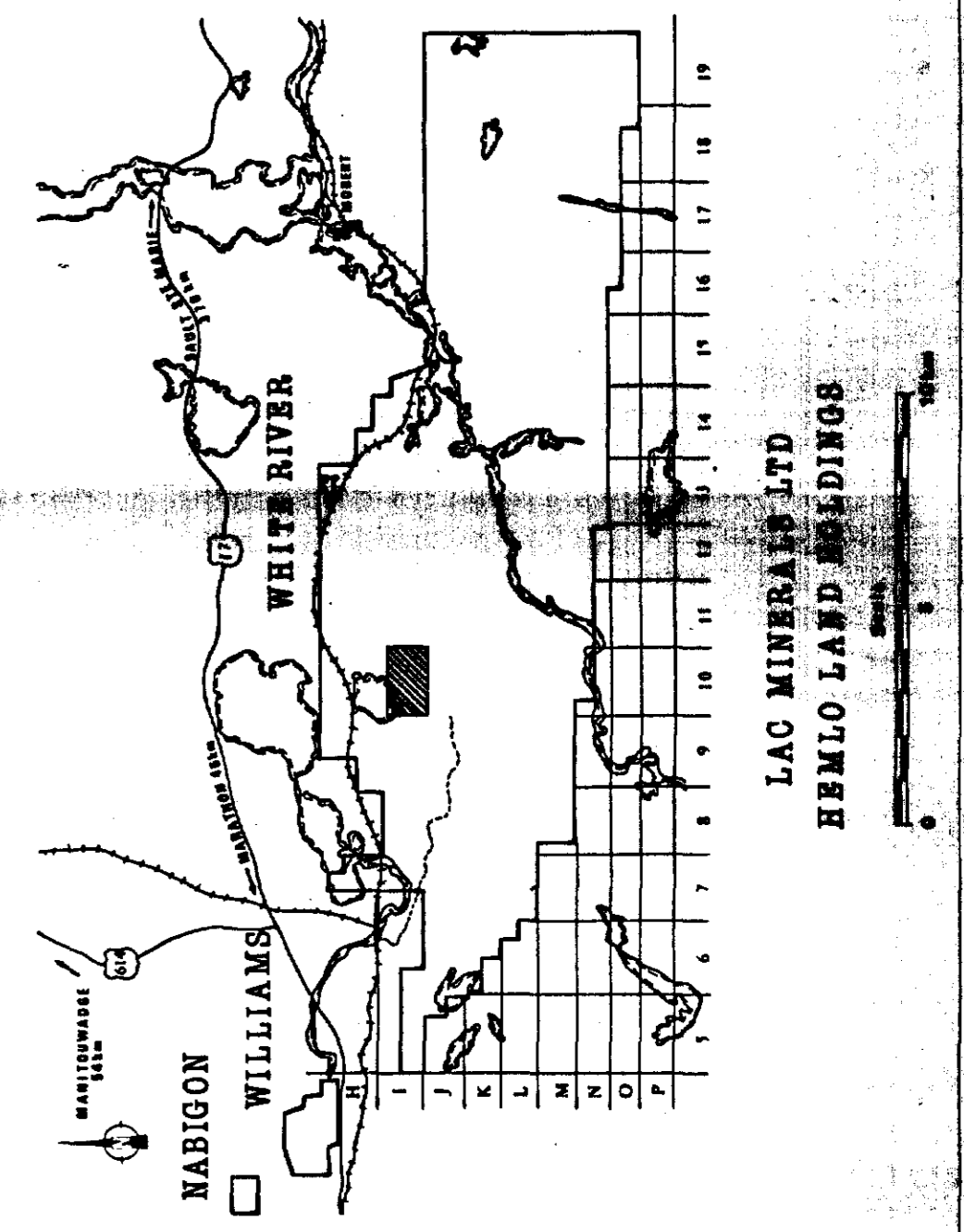
267124

LAC MINERALS LIMITED
WHITE RIVER PROPERTY
GEOLOGICAL CONTACTS

DRAWN BY: H.M. KERRICK DATE: 08/01/02
 CHECKED BY: J. WILSON DATE: 08/01/02
 ENGINEERED BY: J. WILSON DATE: 08/01/02
 APPROVED BY: [Signature] DATE: 08/01/02
 DRAWING NO: 11-2000

INDEX NO: 1-10

DATE: 08/01/02



REFERENCE MAP

Claim Post
 Surveyed
 Claim Line
 Baseline
 Section 36
 Section 35
 Section 34
 Section 33
 Section 32
 Section 31
 Section 30
 Section 29
 Section 28

LEGEND

METAVOLCANIC ROCKS

INTERMEDIATE

1 - Unaltered
 2 - Altered
 3 - Hornfels
 4 - Hornfels
 5 - Hornfels
 6 - Hornfels
 7 - Hornfels
 8 - Hornfels
 9 - Hornfels
 10 - Hornfels

ELFISIC

11 - Unaltered
 12 - Altered
 13 - Hornfels
 14 - Hornfels
 15 - Hornfels
 16 - Hornfels
 17 - Hornfels
 18 - Hornfels
 19 - Hornfels
 20 - Hornfels

STRUCTURE

21 - Fault
 22 - Fault
 23 - Fault
 24 - Fault
 25 - Fault
 26 - Fault
 27 - Fault
 28 - Fault
 29 - Fault
 30 - Fault

SILICIFIED

31 - Unaltered
 32 - Altered
 33 - Hornfels
 34 - Hornfels
 35 - Hornfels
 36 - Hornfels
 37 - Hornfels
 38 - Hornfels
 39 - Hornfels
 40 - Hornfels

INTRUSIVE ROCKS

EARLY MAFIC

41 - Unaltered
 42 - Altered
 43 - Hornfels
 44 - Hornfels
 45 - Hornfels
 46 - Hornfels
 47 - Hornfels
 48 - Hornfels
 49 - Hornfels
 50 - Hornfels

LATE MAFIC

51 - Unaltered
 52 - Altered
 53 - Hornfels
 54 - Hornfels
 55 - Hornfels
 56 - Hornfels
 57 - Hornfels
 58 - Hornfels
 59 - Hornfels
 60 - Hornfels

DEFORMED ROCKS

61 - Unaltered
 62 - Altered
 63 - Hornfels
 64 - Hornfels
 65 - Hornfels
 66 - Hornfels
 67 - Hornfels
 68 - Hornfels
 69 - Hornfels
 70 - Hornfels

OTHER MINERALS

71 - Pyrite
 72 - Pyrite
 73 - Pyrite
 74 - Pyrite
 75 - Pyrite
 76 - Pyrite
 77 - Pyrite
 78 - Pyrite
 79 - Pyrite
 80 - Pyrite

SYMBOLS

81 - Hill Location
 82 - Hill Location
 83 - Hill Location
 84 - Hill Location
 85 - Hill Location
 86 - Hill Location
 87 - Hill Location
 88 - Hill Location
 89 - Hill Location
 90 - Hill Location