



32D04SE0194 2.6659 HEARST

010

REPORT ON  
MAGNETOMETER AND VLF-EM SURVEY  
HEARST TOWNSHIP, ONTARIO  
by  
R.A. MacGregor, P. Eng.  
April 13, 1984

RECEIVED  
APR 24 1984  
MINING LANDS SECTION

### I. INTRODUCTION

Linecutting followed by magnetometer and VLF-EM surveys were carried out in Hearst Township by Colex Explorations Inc. Results are shown on the enclosed plans.

### II. LOCATION ACCESS AND OWNERSHIP

The claims covered by the survey are located in the south central part of the Township. There are 3 claims numbered L667837 and L669668 to 669669 recorded in the name of Lucien Lacasse, Larder Lake, Ontario.

Access to the property is by logging roads running east from Highway 624. These logging roads leave Highway 624 about 8 miles south of the town of Larder Lake.

### III. PREVIOUS EXPLORATION

No previous exploration is known to have been carried out on the property. Most of the northern part of the claims is covered by swampy ground or open water. Gold showings have been found in the general area.

### IV. TOPOGRAPHY

The major part of the property is covered by swampy ground, overburden or open water. There is outcrop on some hills rising to some 50 to 75 feet in height in the south-east part of the claims. Higher ground is covered by small poplar and maple trees or bushes. It appears to have been logged over in the past. The remainder of the claims are covered by spruce, balsam and alder or open swamp.

#### V. SURVEY PROCEDURE

A base line was cut along the south boundary of the claims. Lines were run by pace and compass north from this baseline every 400 feet. Stations were flagged with ribbon.

Magnetometer readings were taken with a Sharpe MF-1 fluxgate magnetometer at 100-foot intervals. The looping method was used for control of diurnal variation. In this method a base station is selected and readings taken along lines describing a loop, arriving back at the starting base station in less than two hours. A second loop is then started using either the same base station or another which is tied to the previous loop. Readings are then corrected for diurnal variation by assuming the time between readings is the same and distributing any variation equally among the intervening readings. No correction was applied less than the accuracy of the base station reading.

A VLF-EM survey was carried out using a Crone Radem instrument set to the signal from Cutler Maine (17.8 KHz). Readings were taken at 100-foot intervals using the procedure outlined in Appendix I. The looping method was used for control of variation, the same as described for the magnetometer survey, excepting that the time was noted for each station. Results were plotted on 1" = 400' scale plans.

#### VI. GENERAL GEOLOGY

The general geology of Hearst Township has been described by J.E. Thomson <sup>(1)</sup>. The claims are underlain by sediments of the

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1) O.D.M. Report Vol 56 part 8 1947

General Geology (Continued)

Larder Lake group cut by lamprophyre dykes. Cobalt series sediments overly the Larder Lake group in the north-west. The approximate trend of the Larder Lake group sediments is north-south.

VII. DISCUSSION OF RESULTSMagnetometer

The magnetometer survey indicates a magnetic high in the centre of claim L667837 with a low through the central part of L669668. The high reading may be associated with a lamprophyre dyke. Another magnetic high along the south part of line 36E may also be lamprophyre or a basic intrusion.

VLF-EM

One line cross-overs are found on lines 16E, 24E and 36E. They may be due to topographic effects, but are possibly worth checking by other geophysical methods. The large dip angles on many lines are probably due to conductive overburden.

VIII. CONCLUSIONS

The magnetic survey has indicated two areas of high magnetics which could be caused by lamprophyre or basic intrusions.

The VLF-EM survey is possibly only marginally effective due to the large areas of swamp in which the depth of overburden is unknown.

Respectfully submitted



R.A. MacGregor, P. Eng.

April 13, 1984

C E R T I F I C A T E

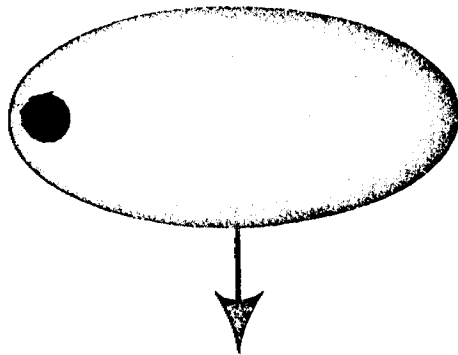
I, Robert A. MacGregor, certify:

1. I am a Mining Engineer residing at 134 Palace Drive, Sault Ste. Marie, Ontario. I have worked as a mining engineer and geologist for the past 20 years.
2. I am a member of the Association of Professional Engineers of the Province of Ontario and a member of the Canadian Institute of Mining and Metallurgy.
3. I attended Queen's University for two years in the Mining-Geology course.
4. I personally supervised the field work covered by this report.

April 13/84  
DATE

  
R. A. MacGregor

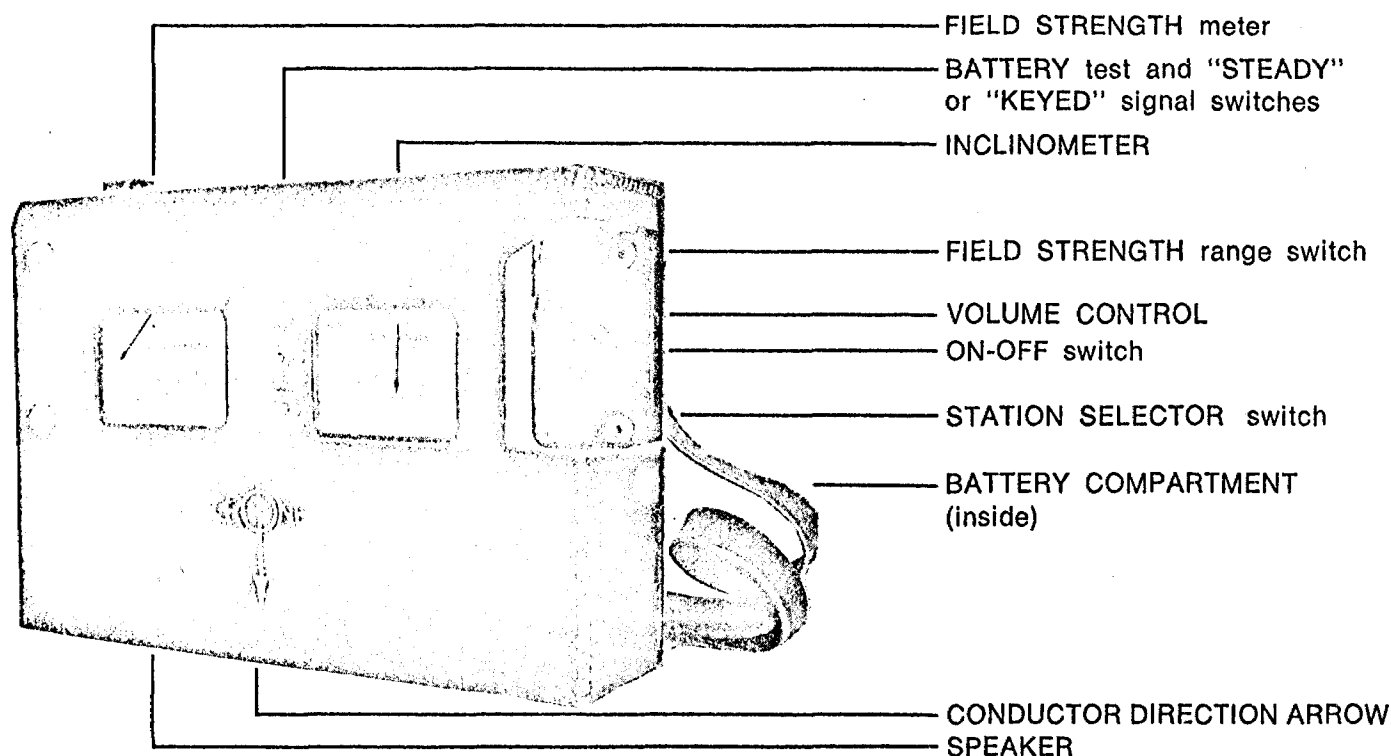
# Appendix I



## CRONE GEOPHYSICS LIMITED

3607 WOLFEDALE ROAD,  
MISSISSAUGA, ONTARIO,  
CANADA.

Phone: (416) 270-0096



This is a rugged, simple to operate, ONE MAN EM unit. It can be used without line cutting and is thus ideally suited for GROUND LOCATION OF AIRBORNE CONDUCTORS and the CHECKING OUT OF MINERAL SHOWINGS. This instrument utilizes higher than normal EM frequencies and is capable of detecting DISSEMINATED SULPHIDE DEPOSITS and SMALL SULPHIDE BODIES. It accurately isolates BANDED CONDUCTORS and operates through areas of HIGH HYDRO NOISE. The method is capable of deep penetration but due to the high frequency used its penetration is limited in areas of clay and conductive overburden.

The DIP ANGLE measurement detects a conductor from a considerable distance and is used primarily for locating conductors. The FIELD STRENGTH measurement is used to define the shape and attitude of the conductor.

## SPECIFICATIONS

**Source of Primary Field:** VLF Communication Stations 12 to 24 KHz

**Number of Stations:** 7 switch selectable

**Stations Available:** The seven standard stations are Cutler, Maine, 17.8; Seattle, Washington, 18.6; Collins, Colorado, 20.0; Annapolis, Md., 21.4; Panama, 24.0; Hawaii, 23.4; England, 16.0. Alternative stations which may be substituted are: Gorki, Russia, 17.1; Japan, 17.4; England, 19.6; Australia, NWC, 22.3 KHz.

**Check that Station is Transmitting:** Audible signal from speaker.

### Parameters Measured and Means:

(1) DIP ANGLE in degrees, from the horizontal of the magnetic component of the VLF field. Detected by minimum on the field strength meter and read from an inclinometer with a range of  $\pm 80^\circ$  and an accuracy of  $\pm \frac{1}{2}^\circ$ .

(2) Field Strength (total or horizontal component) of the magnetic component of the VLF field. Measured as a per cent of normal field strength established at a base station. Accuracy  $\pm 2\%$  dependent on signal. Meter has two ranges: 0 — 300% and 0 — 600%. Switch for "keyed" or "F.S." (steady) signal.

(3) Out of Phase component of the magnetic field, perpendicular in direction to the resultant field, measured without sign, as a per cent of normal field strength. This is the minimum reading of the Field Strength meter obtained when measuring the dip angle. Accuracy  $\pm 2\%$ .

**Operating Temperature Range:**  $-20^\circ$  to  $+110^\circ$  F.

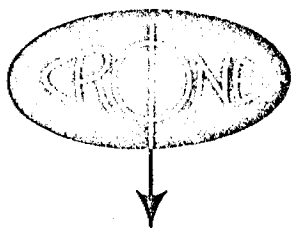
**Dimensions and Weight:** 3.5"  $\times$  7.5"  $\times$  10.5" — 6 lb.

**Shipping:** Foam lined wooden case — shipping wt. — 15 lb.

**Batteries:** 2 of 9 volt: Eveready 216, Burgess 2U6, Mallory M-1604  
Average life expectancy — 3 weeks to 3 months dependent on amount of usage.

*Units Available on a Rental or Purchase Basis.  
Contract Services Available for Field Surveys.*

# CRONE GEOPHYSICS LIMITED



3607 WOLFEDALE ROAD  
MISSISSAUGA, ONTARIO  
CANADA

PHONE (416) 270-0096

## INSTRUCTIONS FOR OPERATION OF THE

### RADEM VLF-EM RECEIVER

#### (1) Transmitter Stations

The VLF Communication Broadcast stations are positioned throughout the world. At present, 12 of these stations broadcast steadily except for maintenance periods usually of 1/2 to 1/3 days per week. The RADEM receives any 7 of these stations with selection by means of a switch. The usable range of the stations varies widely with power and transmission conditions but is usually between 1000 and 5000 miles. Two types of signals are broadcast "keyed" (on and off) and "frequency shift" (FM). Frequency shift provides a steady signal and is most suitable for Field Strength measurements. When a "Keyed" signal is used the receiver must be switched to the keyed signal "K" position for Field Strength Measurements.

A station should be selected that is located in the same direction as the regional strike. If in doubt of the geological strike two orthogonal stations should be read.

#### (2) Field Measurements

##### (a) Dip Angle of Resultant Field

Technically the angle in degrees, from the horizontal, of the major axis of the polarization ellipse. This is the easiest measurement to make since it is not dependent on changes in signal strength. The dip angle measurement detects a conductor from a considerable distance - from several hundred to several thousand feet. Direct plotting of the dip angles often does not clearly define the shape or position of the conductor. If strong regional effects occur the conductor may not produce a cross-over and may be defined only by a sharp variation in dip angles.

Two methods are available to overcome this defect in the dip angle measurement: (1) Field Strength measurement and (2) treatment of the Dip Angle data by means of a simple process developed by D. C. Fraser and described in Geophysics Vol. 34, #6, December 1969.



(b) Field Strength Measurements

These measurements do not detect the conductor until they are almost above it. Thus they are independent of regional trends and accurately define the shape and boundaries of the conductor. This is simply achieved by contouring the Field Strength readings. Either the Resultant Field Strength or Horizontal Component of the Field Strength are measured, usually the latter, since it is easier to read.

The Field Strength of a VLF station varies with time thus a base station must be established and drift corrections applied as in a magnetic survey. Drift is particularly rapid during sunrise and sunset (50% per hour) and reading is not advised during this period. The primary base station is usually located in a non conductive area where the dip angle is near "0" and the out-of-phase signal is also "0" - the Field Strength is set at 100 at this station and this is the Normal Field Strength standard for the survey.

(c) "Out-of-Phase" Field Strength Measurement

This is in effect the out of phase component perpendicular in direction to the resultant field. The measurement is without sign and is sensitive to very low orders of conductivity. It is simply the minimum reading of the Field Strength meter obtained when reading the Dip Angle. It is expressed in terms of percent of the normal Field Strength. It is not usually recorded unless very low orders of conductivity are of interest.

FIELD PROCEDURE:

- (1) Make sure the "Normal" - "K" switch is in the normal position.
- (2) Hold the RADEM with the meter faces horizontal. Rotate the instrument in a horizontal plane, by moving the body until a null is observed on the Field Strength meter. This aligns the base of the instrument in the direction of the VLF field and the operator will be facing in the direction of the transmitting station.
- (3) Raise the instrument such that the meter faces are vertical and rock it back and forth until a minimum is obtained on the Field Strength meter (switch on 0-300 scale). This minimum is the "Out-of-Phase" reading. Holding the instrument at the minimum position read the inclinometer for the Dip Angle reading. Note that the arrow through the "o" of Crone points towards the conductor. If this is north then the inclinometer reads 17°N and the conductor is towards the north. This convention leaves no doubt as to where the conductor is located. The operator must be able to recognize between a true cross-over and a false cross-over and this convention is established to help simplify this matter.

(4) For a Horizontal Field Strength measurement hold the meter face horizontal and rotate this instrument in a horizontal plane until a maximum reading is obtained. This will be approximately in a direction at right angles to the operator. For a Resultant Field Strength measurement - this is the maximum Field Strength reading obtainable - and is obtained by holding the RADEM at right angles to the operator and inclined at the same angle as the dip angle.

(5) For a Field Strength reading with a "Keyed" VLF signal move the "Normal" - "K" switch to the "K" position. It must be returned to the "Normal" position for the dip angle measurement.

Since the Field Strength varies with time this reading must be tied to a base station with drift corrections applied similar to a magnetometer survey. If possible the primary base station should be established in a non-conductive area where the dip angle is near "0" with out of phase near "0" and where the volume control is adjusted such that the Field Strength reading is "100".

EXAMPLE OF FIELD SHEET

Station	Out of Phase-%	Dip Angle Degrees	Field Strength				Remarks
			Reading	Time	Drift	Corr.	
L 6+00W							
10N-Base	2	0	100	9:00	0	100	
10+50N	2	0	100	.02	0	100	Lake
11N	0	2N	99	.04	-1	98	Lake
11+50N	0	6N	101	.06	-1	100	
12N	0	12N	102	.08	-2	100	Road
12+50N	4	22N	118	.10	-2	116	
13N	6	20N	185	.12	-2	187	
13+50N	6	8N	263	.14	-3	260	X'over
14 N	0	1S	247	.17	-3	245	
14+50N	0	12S	164	.20	-4	162	
/							
10N-Base			114	10:10	-14	100	

TRANSMITTER STATION SHUT DOWN TIMETABLE

(All times Eastern Standard)

Monday	8:00 a.m. to 2:00 p.m.	Annapolis, Maryland
Tuesday	12:00 a.m. to 5:00 p.m.	Hawaii
Wednesday	7:00 a.m. to 1:00 p.m.	Balboa, Panama
Thursday	11:00 a.m. to 7:00 p.m.	Seattle, Washington
Friday	9:00 a.m. to 1:00 p.m.	Cutler, Maine

BATTERIES

For units up to #100 - 2 of 9 volt batteries required. For units above #100 - 1 only battery is required but plugs for 2 batteries are supplied for cold weather operation.

VLF-EM Survey  
 L667837, L669668-669669  
 Hearst Twp.

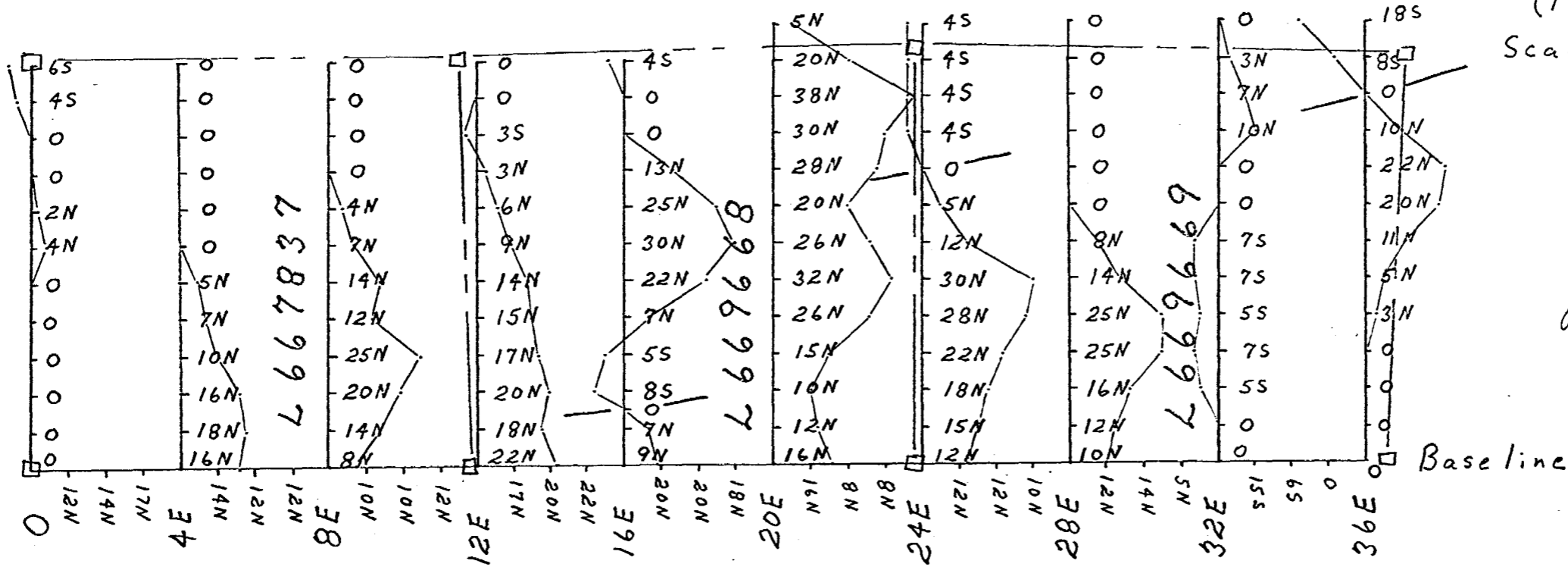
*J. Mark*

Ontario  
 Scale 1" = 400'

Instrument - Crone Radem  
 Station - Cutler, Maine  
 (17.8 KHz)



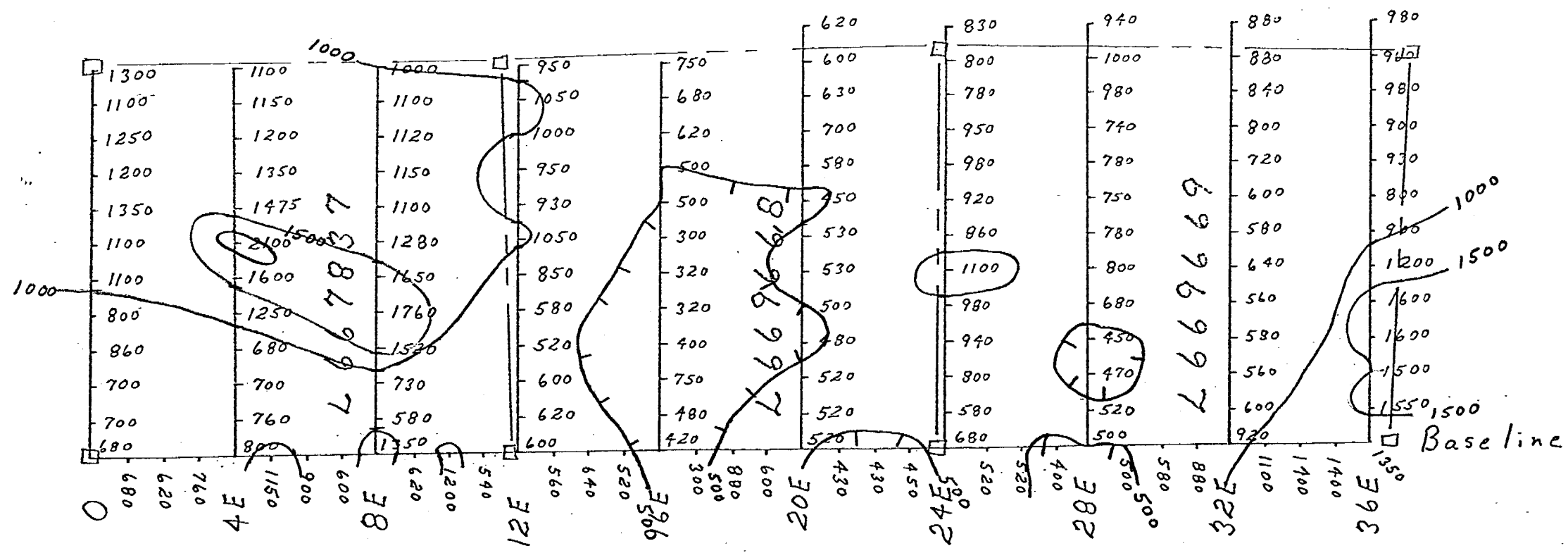
Scale 1" = 40'



Magnetometer Survey  
 L 667837, L 669668 - 6696  
 Hearst Twp.  
 Ontario  
 Scale 1" = 400'

*R. Moody*

Instrument - Sharpe MF-1  
 Contour interval - 500 gammas



26659



32004SE0194 2.6659 HEARST

900

File \_\_\_\_\_

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) Magnetometer and VLF-EM

Township or Area Hearst

Claim Holder(s) Lucien Lacasse

Survey Company Colex Explorations Inc.

Author of Report R.A. MacGregor

Address of Author 134 Palace Dr. S.S. Marie

Covering Dates of Survey October 1983-April 1984  
(linecutting to office)

Total Miles of Line Cut \_\_\_\_\_

MINING CLAIMS TRAVERSED  
List numerically

1667827.....  
(prefix) (number)

1669668.....

1669669.....

SPECIAL PROVISIONS  
CREDITS REQUESTED

DAYS  
per claim

Geophysical

ENTER 40 days (includes  
line cutting) for first  
survey.

-Electromagnetic 20

ENTER 20 days for each  
additional survey using  
same grid.

-Magnetometer 20

-Radiometric \_\_\_\_\_

-Other \_\_\_\_\_

Geological \_\_\_\_\_

Geochemical \_\_\_\_\_

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

Magnetometer \_\_\_\_\_ Electromagnetic \_\_\_\_\_ Radiometric \_\_\_\_\_  
(enter days per claim)

DATE: Apr. 13/84 SIGNATURE: [Signature]  
Author of Report or Agent

Res. Geol. \_\_\_\_\_ Qualifications 2.2048

Previous Surveys

File No.	Type	Date	Claim Holder

TOTAL CLAIMS 3

If space insufficient, attach list

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

Magnetometer  
VLF-EM

51  
151

Number of Stations 151 Number of Readings \_\_\_\_\_  
Station interval 100' Line spacing 400'  
Profile scale 1" = 40'  
Contour interval 1" = 1000 gammas

MAGNETIC

Instrument Sharpe MF-1  
Accuracy - Scale constant 20 gammas on lowest scale  
Diurnal correction method looping method  
Base Station check-in interval (hours) 2 hours or less  
Base Station location and value various along base line

ELECTROMAGNETIC

Instrument Crone Radem  
Coil configuration N/A  
Coil separation N/A  
Accuracy + 4'  
Method:  Fixed transmitter  Shoot back  In line  Parallel line  
Frequency Cutler Maine (17.8 KHz)  
(specify V.L.F. station)  
Parameters measured Dip angle of the resultant field

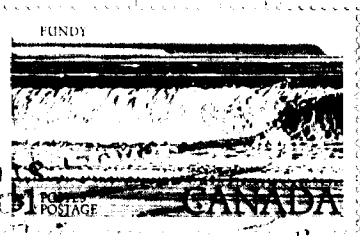
GRAVITY

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 \_\_\_\_\_

First Class Première classe



150  
17  
9

Mining Lands Section

File No 2.6659

Control Sheet

TYPE OF SURVEY

- GEOPHYSICAL
- GEOLOGICAL
- GEOCHEMICAL
- EXPENDITURE

MINING LANDS COMMENTS:

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LD  
Lgd.

Arthur Barr  
Signature of Assessor

\_\_\_\_\_  
Date



26659

- 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.

*June 18*

(File # 667837)

The Mining Act

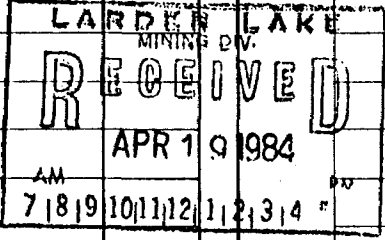
Type of Survey(s) **MAGNETOMETER** Township or Area **Hearst**  
 Claim Holder(s) **Lucien Lacasse** Prospector's Licence No. **K-18234**  
 Address **Larder Lake, Ontario POK 1L0**  
 Survey Company **Colex Explorations Inc.** Date of Survey (from & to) **Day | Nov | 83 | Day | Nov | 83** Total Miles of line Cut  
 Name and Address of Author (of Geo-Technical report) **R.A. MacGregor, 134 Palace Drive SAULT STE. MARIE, Ontario**

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

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

Mining Claim			Expend. Days Cr.	Mining Claim			Expend. Days Cr.
Prefix	Number			Prefix	Number		
<b>L</b>	<b>667837</b>						
	<b>669668</b>						
	<b>669669</b>						



Expenditures (excludes power stripping)

Type of Work Performed **MAGNETOMETER**

Performed on Claim(s) **MAY 15 1984**

**MINING CLAIMS SECTION**

Calculation of Expenditure Days Credits

Total Expenditures **\$** ÷ **15** =  Total Days Credits

Total number of mining claims covered by this report of work. **3**

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 **Apr. 16/84**  
 Record Holder or Agent (Signature) *R.A. MacGregor*

For Office Use Only

Total Days Cr. Recorded **60** Date Recorded **APR 19 1984** Mining Recorder *[Signature]*

Date Approved *[Signature]* Date Recorded *[Signature]* Branch Director *[Signature]*

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 **R.A. MacGregor, 134 Palace Dr. SAULT STE. MARIE, Ontario**

Date Certified **Apr. 16/84** Certified by (Signature) *[Signature]*

Am 17/84

Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.  
 - Do not use shaded areas below.

#72

Type of Survey(s) <b>Geophysical VLF-EM</b>		Township or Area <b>Hearst</b>													
Claim Holder(s) <b>Lucien Lacasse</b>		Prospector's Licence No. <b>K-18234</b>													
Address <b>Larder Lake, Ont</b>															
Survey Company <b>Coley Exploration</b>		Date of Survey (from & to) <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>Day</td><td>Mo.</td><td>Yr.</td> <td>Day</td><td>Mo.</td><td>Yr.</td> </tr> <tr> <td></td><td></td><td><b>11 83</b></td> <td></td><td></td><td><b>11 83</b></td> </tr> </table>		Day	Mo.	Yr.	Day	Mo.	Yr.			<b>11 83</b>			<b>11 83</b>
Day	Mo.	Yr.	Day	Mo.	Yr.										
		<b>11 83</b>			<b>11 83</b>										
Name and Address of Author (of Geo-Technical report) <b>R.A. MacGregor 134 Palace Dr. Sault Ste Marie Ont</b>															

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

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

Mining Claim			Mining Claim																						
Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.																				
<b>L</b>	<b>667837</b>																								
	<b>669668</b>																								
	<b>669669</b>																								
<b>RECEIVED</b>																									
<b>FEB 17 1984</b>																									
<b>MINING LANDS SECTION</b>																									
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align:center;"><b>LARDER LAKE MINING DIV.</b></td> </tr> <tr> <td colspan="2" style="text-align:center;"><b>RECEIVED</b></td> </tr> <tr> <td colspan="2" style="text-align:center;"><b>FEB 17 1984</b></td> </tr> <tr> <td style="text-align:center;">AM</td> <td style="text-align:center;">PM</td> </tr> <tr> <td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td> </tr> </table>						<b>LARDER LAKE MINING DIV.</b>		<b>RECEIVED</b>		<b>FEB 17 1984</b>		AM	PM	7	8	9	10	11	12	1	2	3	4	5	6
<b>LARDER LAKE MINING DIV.</b>																									
<b>RECEIVED</b>																									
<b>FEB 17 1984</b>																									
AM	PM																								
7	8	9	10	11	12	1	2	3	4	5	6														

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures	÷	<b>15</b>	=	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.

Total number of mining claims covered by this report of work. **3**

Date **Feb 17/84** Recorded by or Agent (Signature) **R MacGregor**

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
<b>60</b>	<b>FEB 17 1984</b>	
Date Approved or recorded	Branch Director	
<b>Aug 2/84</b>	<b>[Signature]</b>	

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  
**R.A. MacGregor 134 Palace Dr. Sault Ste Marie Ont**

Date Certified **Feb 17/84** Certified by (Signature) **[Signature]**

1984 05 09

Your File: 72  
Our File: 2.6659

Mr. George J. Koleszar  
Mining Recorder  
Ministry of Natural Resources  
4 Government Road East  
Kirkland Lake, Ontario  
P2N 1A2

Dear Sir:

We have received reports and maps for a Geophysical  
(Electromagnetic) Survey submitted under Special  
Provisions (credit for Performance and Coverage)  
on Mining Claims L 667837 et al in the Township  
of Hearst.

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

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:mc

cc: Lucien Lacasee  
Box 231  
Larder Lake, Ontario  
POK 1L0

cc: R.A. MacGregor  
134 Palace Drive  
Sault Ste. Marie, Ontario  
P6B 5H5

FROM THE DESK OF

*Robert A. MacGregor*

*16/4/84*

*Projects Branch  
MNR.*

RECEIVED

APR 24 1984

MINING LANDS SECTION

*Dear sirs -*

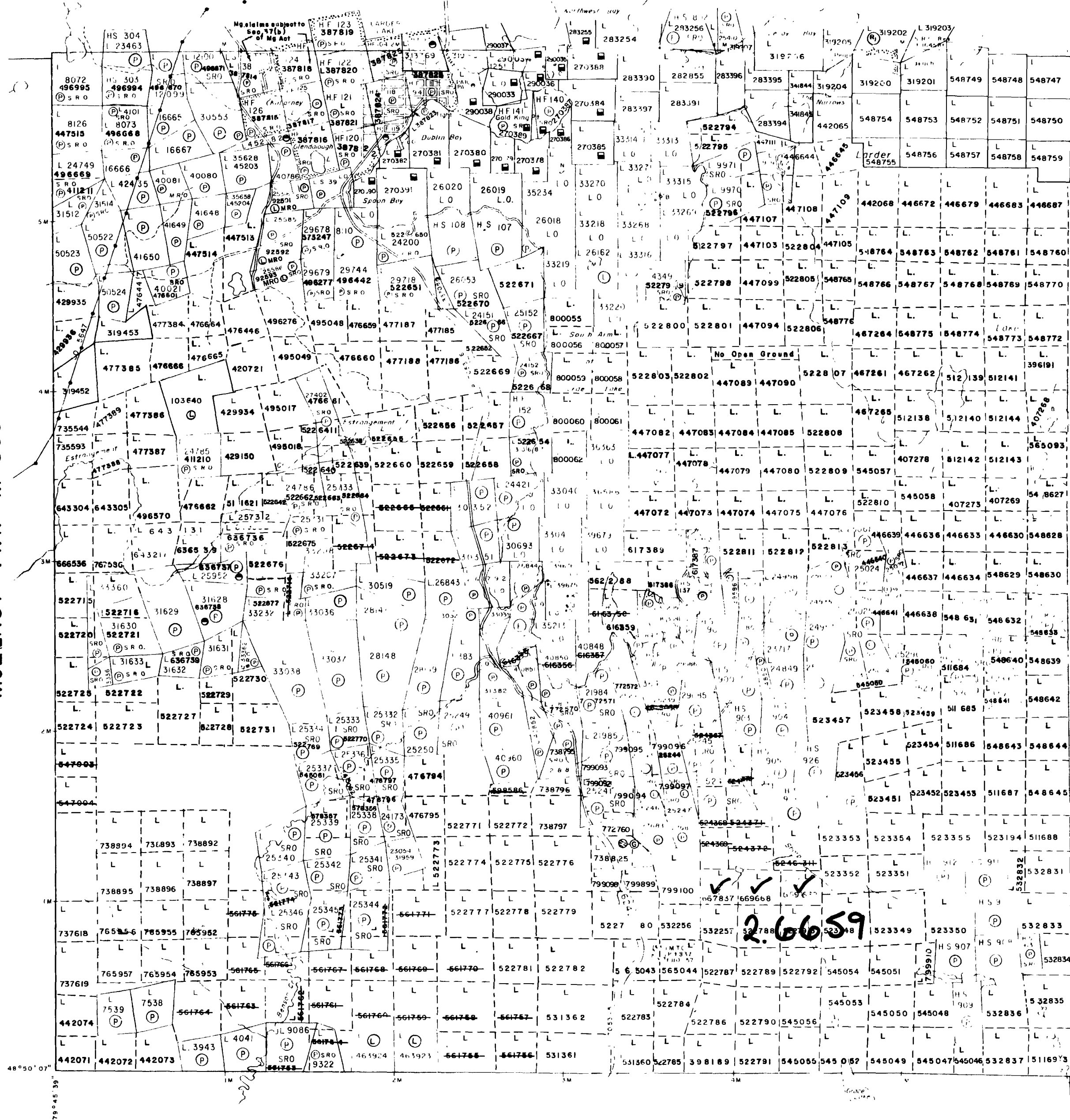
*Please find enclosed report  
of Mag and VLF-EM survey.  
Please note VLF-EM survey  
was reported on Feb 17/84 and  
Mag survey on April 16/84 -  
Two separate work reports*

*Yours truly*

*R MacGregor*

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Management Branch
APR 24 1984
41984
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McVITTIE TWP. M-370



THE TOWNSHIP OF  
OF  
**HEARST**

DISTRICT OF  
TIMISKAMING  
LARDER LAKE  
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

- PATENTED LAND (P)
- CROWN LAND SALE (C)
- LEASES (L)
- LOCATED LAND (L)
- LICENSE OF OCCUPATION (L.O.)
- MINING RIGHTS ONLY (M.R.O.)
- SURFACE RIGHTS ONLY (S.R.O.)
- ROAD (R)
- IMPROVED ROADS (I.R.)
- KING'S HIGHWAYS (K.H.)
- RAILWAYS (R.A.)
- POWER LINES (P.L.)
- STAKE MARKS (S.M.)
- MINES (M)
- PATENTED MINES (P.M.)

NOTES

1. Mining rights shown on this map are subject to the provisions of the Mining Act (R.S.O. 1970).

2. Staking of mining claims within the Town of Larder Lake shown thus subject to Sec. 37(b) of the Mining Act (R.S.O. 1970).

SAND AND GRAVEL

- (S) QUARRY PERMIT

Areas withdrawn from staking under Section 43 of the Mining Act (R.S.O. 1970)

Order No.	File	Date	Disposition
(M) W14/80NR	164586	26/11/80	S.R.O.

PLAN NO **M-354**

ONTARIO  
MINISTRY OF NATURAL RESOURCES  
SURVEYS AND MAPPING BRANCH

SKEAD TWP. M-387

