



ROCHON OPTION

Zavitz Twp

RECEIVED

MAY 19 1982

GEOPHYSICAL SURVEY REPORT

MINING LANDS SECTION

SUMMARY:

A VLF - EM survey was conducted over the property known as the "Rochon Option", located in Zavitz Township. Several conductors were defined.

INTRODUCTION:

The Rochon Option property consists of nine contiguous mining claims (L-568898, 591269, 591270, 618211, 618212, 618213, 618214, 618215 and 618216) located in east central Zavitz Township, approximately 30 miles (48 km) southeast of Timmins, Ontario.

The property is currently held by Reginald Rochon, 601 Lamminen Ave., Timmins, Ontario and is under option to Falconbridge Ltd., renewable the first day of August, 1982.

ACCESS:

The property can be reached by a reasonably good seasonal gravel road from Timmins or from Matachewan by truck in summer or by snow machine from the Texmont mine in winter.

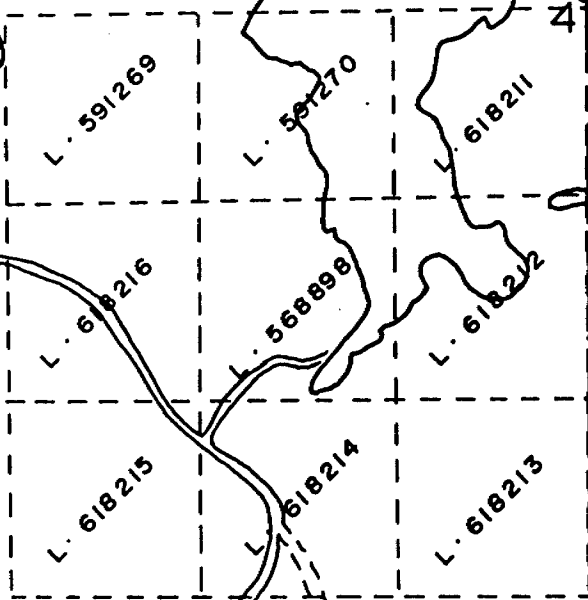
About one quarter of the property is under Kitchiming Lake with the remainder being of low, rolling relief.

LINECUTTING:

A total of 8.3 miles of grid line was cut under contract to J. A. Jamieson, Notre Dame du Nord, Quebec, in November, 1981. The grid was established with a baseline of azimuth 103° , section lines at 400 foot



KITCHICAN



ZAVITZ ₃ TWP
HINCKS ₂ TWP

FALCONBRIDGE NICKEL MINES LTD.

ROCHON OPTION

SCALE 1" = 1320'
DATE 3 MAY 1982

DRAWN IRM
TRACED

intervals and two tielines for control around Kitchiming Lake.

GEOLOGY:

The property is predominantly underlain by massive and pillowed tholeiitic basaltic flows, variolitic flows and a small granitic intrusive body in the southeast corner of the property. Regional strike of the units is roughly east - west with subvertical dips.

A copper showing, previously trenched by Rochon, occurs immediately to the south of Kitchiming Lake in roughly the center of the property. Mineralization is in the form of disseminated pyrrhotite with lesser chalcopyrite and minor bornite and native copper. The sulphides occur as vesicle fillings, veinlets, patches and fracture surface linings.

ELECTROMAGNETIC SURVEY:

The VLF-EM survey was conducted between November 26 and 28, 1981, with lake readings taken March 17, 1982 by the author. The results have been appended to this report (see map pocket).

A total of 7.1 miles were surveyed using a Phoenix Geophysics Model VLF-2. This instrument measures the orientation and magnitude of the major and minor axes of the ellipse of polarization as expressed by dip angle and field strength readings. The instrument has a resolution of 1° for dip angle readings and 5% for field strength readings. The transmitter station used was Cutler, Maine, operating on a frequency of 17.8 Khz.

Both the dip angle and field strength values were rough plotted in the field.

INTERPRETATION:

On the western portion of the sheet, the VLF data indicates a series of weak to moderate conductors trending roughly E/W. Conductors A, A', D and E appear to be due to bedrock sources with probable dips to the north, possibly representing a sequence of lava flows.

Most VLF anomalies terminate or are offset near the western shore of the lake, indicating a probable N/S fault which intersects line 64E at the 100N baseline. The strong anomalies within the lake (conductors F, F', G,

M and N) are probably due to current gathering effects in overburden troughs. Although strong in amplitude, these anomalies are considered to be of minor importance at this time, with the possible exception of F and M. Correlation of conductive trends from line to line is difficult. Magnetic coverage of the area may help to resolve ambiguities if a survey can be completed before breakup.

There are six conductors east of the lake. Anomalies H, I and J are quite weak with no significant increase in field strength. The interpreted strike is dubious. An alternate interpretation would be two parallel conductors which conform to the SE strike of anomaly MK. Zones K and L clearly show a change in strike direction to the southeast and may be extensions of lake anomalies M and N. The proximity of these two zones precludes estimates of dip or depth.

Anomaly B at the southeast corner of the grid is perhaps the most interesting anomaly. This moderately strong anomaly, seen on lines 72E and 76E is situated within or near a granitic intrusion, and is probably bounded on the west end by the postulated N/S fault.

The Rochon property contains numerous VLF anomalies which are probably due to faults and/or shears in the bedrock, although semi-massive to massive sulphides cannot be ruled out as a possible cause. The effectiveness of the VLF as a direct exploration tool in this area is of questionable value, particularly in view of the fact that there was no anomalous response over the known mineralized showing on line 60E. Either the mineralization is of very limited dimensions or it is too disseminated (non-conductive) to respond to even the higher frequency EM methods.

RECOMMENDATIONS:

No attempt has been made to select drill targets on the VLF data although this could be done if necessary. These results should be reviewed in conjunction with magnetic data to provide additional structural information. Additional work is probably warranted. Multifrequency or Pulse EM could be used to screen the VLF conductors and to determine which, if any, are due to massive or semi-massive sulphides. However, in view of the disseminated nature of the known mineralization, the use of IP should be seriously considered to detect zones of interest. The effectiveness of an IP survey may also be limited due to the polarization effects of magnetite

in the mafic volcanic rocks.

Respectfully submitted

I. R. Morrison

Ian R. Morrison

Field Geologist

STATEMENT OF QUALIFICATIONS

I, Ian Robert Morrison, of 379 Tamarack Street, Timmins, Ontario, do hereby certify that I am a graduate of the University of Western Ontario as a geologist in 1977. I have been practising my profession in Canada since 1974.

I further certify that I have no direct interest in this claim group and the accompanying report is based on the interpretation obtained during the geophysical survey of the property.

A handwritten signature in cursive script, reading "Ian R. Morrison", followed by a horizontal line and a diagonal slash.

Ian R. Morrison



42A03SE0164 2.4805 ZAVITZ

900

Type of Survey(s)

ELECTROMAGNETIC - V.L

Claim Holder

R. ROCHON

[Prospector's Licence No.

M. 18752

Survey Company

FALCONBRIDGE NICKEL MINES LTD

Survey Dates (linecutting to office)

[illegible]

24	11	81
Day	Mo.	Yr.

8.39

Name and Address of Author (of Geo-Technical report)

1. R. MORRISON P.O. Box 1150 TIMMINS ONTARIO

Special Provisions Credits Requested

Instructions	Geophysical	Days per Claim
For first survey:	- Electromagnetic	40
Enter 40 days. (This includes line cutting)	- Magnetometer	
	- Radiometric	
For each additional survey:	- Other	
using the same grid:		
Enter 20 days (for each)	Geological	
	Geochemical	

Man Days

Instructions	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Airborne Credits

Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	Days per Claim
	Magnetometer	
	Radiometric	

Expenditures (excludes power stripping)

Type of Work Performed
Performed on Claim(s)

Calculation of Expenditure Days Credits

$$\frac{\text{Total Expenditures}}{\$ \quad \div \quad 15 = \quad \text{Total Days Credits}}$$

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.

Report Completed

Date of Report 16. 3. 82	Recorded Holder or Agent (Signature) [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:

I. R. MORRISON P.O. Box 1150, TIMMINES ONTARIO

Date Certified

19 March 82

Certified by (Signature)

HRM -

1362 (51/2)



Mining Lands Comments

☒ To: Geophysics *Mr. Barlow*

Comments

☒ Approved

☐ Wish to see again with corrections

Date

Jan 3/82

Signature

[Signature]

☐ To: Geology - Expenditures

Comments

☐ Approved

☐ Wish to see again with corrections

Date

Signature

☐ To: Geochemistry

Comments

LD

☐ Approved

☐ Wish to see again with corrections

Date

Signature

☐ To: Mining Lands Section, Room 6462, Whitney Block.

(Tel: 5-1380)

1982 06 04

2.4805

Mining Recorder
Ministry of Natural Resources
4 Government Road East
P.O. Box 984
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 568898 et al in the Township of Zavitz.

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

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1316

J. Skura/amc

cc: Reg Rochon
Timmins, Ontario

cc: Falconbridge Nickel Mines Ltd.
Timmins, Ontario

cc: Mr. I.R. Morrison
Timmins, Ontario



Ministry of Natural Resources

File _____

GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL
TECHNICAL DATA STATEMENTTO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETCRECEIVED
MAY 19 1982
MINING LANDS SECTION

Type of Survey(s) VLF - EM
Township or Area ZAUTITZ TOWNSHIP
Claim Holder(s) REG ROCHON
601 LAMMINEN AVE TIMMINS
Survey Company FALCONBRIDGE NICKEL MINES LTD.
Author of Report IAN R. MORRISON
Address of Author P.O. BOX 1150 TIMMINS, ONT.
Covering Dates of Survey 26 NOV. 81 - 7 MAY 1982
(linecutting to office)
Total Miles of Line Cut 8.3 MILES

SPECIAL PROVISIONS
CREDITS REQUESTEDENTER 40 days (includes
line cutting) for first
survey.ENTER 20 days for each
additional survey using
same grid.

Geophysical

DAYS
per claim-Electromagnetic 40

-Magnetometer _____

-Radiometric _____

-Other _____

Geological _____

Geochemical _____

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)DATE: 14 May '82 SIGNATURE: I R Morrison
Author of Report or AgentRes. Geol. _____ Qualifications 2.3447Previous Surveys

File No. Type Date Claim Holder

MINING CLAIMS TRAVERSED
List numerically

L - 568898

(prefix)

(number)

L - 591269

L - 591270

L - 618211

L - 618212

L - 618213

L - 618214

L - 618215

L - 618216

If space insufficient, attach list

TOTAL CLAIMS 9

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 384 Number of Readings 437
 Station interval 100 FEET Line spacing 400 FEET
 Profile scale 1" = 20° DIP ANGLE
 Contour interval _____

MAGNETIC

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

ELECTROMAGNETIC

Instrument PHOENIX GEOPHYSICS MODEL VLF-2
 Coil configuration _____
 Coil separation INFINITE
 Accuracy ± 1° DIP ANGLE ± 5% FIELD STRENGTH
 Method: ☒ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line
 Frequency 17.8 KHZ CUTLER ME
(specify V.L.F. station)
 Parameters measured ORIENTATION AND MAGNITUDE OF MAJOR AND MINOR AXES
OF THE ELLIPSE OF POLARIZATION AS EXPRESSED BY
DIP ANGLE AND FIELD STRENGTH

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 _____

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

Corrections made _____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth — include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey _____

Instrument _____

Accuracy _____

Parameters measured _____

Additional information (for understanding results) _____

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

Purulator

Courier Ltd.
Courrier Ltée

BILL OF LADING
CONNAISSANCE

NOT NEGOTIABLE
NON NEGOCIABLE

CANADA'S LARGEST COURIER SERVICE - LE SERVICE DE COURRIER LE PLUS IMPORTANT AU CANADA

TYPE OF SERVICE/TYP. DE SERVICE

☒ GROUND
EN SURFACE

☐ AIR
PAR AVION

ALBERTA

CONSIGNOR (FROM)/EXPÉDITEUR (DE)

FAIRCHILD LTD

STREET ADDRESS/ADRESSE (NO ET RUE)

167 WILSON

PROV.

POSTAL CODE/CODE POSTAL

CITY/VILLE

THUNDERBAY

SHIPPER SIGNATURE/SIGNATURE DE L'EXPÉDITEUR

NO DECLARED VALUE/PAS DE VALEUR DÉCLARÉE

9

CONSIGNEE (TO)/DESTINATAIRE (À)

FW MATTHEWS / LASS MEMORIAL SR.

STREET ADDRESS/ADRESSE (NO ET RUE)

WATERLOO

PROV.

POSTAL CODE/CODE POSTAL

CITY/VILLE

THUNDERBAY

COURIER SIGNATURE/SIGNATURE DU COURRIER

DATE

TIME/HEURE

NO. OF PIECES
NO DE COLIS

DESCRIPTION

WEIGHT/POIDS

RECEIVED

5

1

TOTAL

SPECIAL AGREEMENT/ACCORDS SPECIAUX

TOTAL WEIGHT
POIDS TOTAL

RECEIVED IN GOOD ORDER EXCEPT AS NOTED/REÇU EN BON ETAT

APPARENT EXCEPTÉ TEL QU'INDIQUE

NO LANDS SECTION

PER:

PAR:

DATE

TIME/HEURE

CHECK ONE
ENCOCHER UNE

PREPAID
PORT PAYÉ

☒

COLL
À PÉRI

☐

WEIGHT RATE
TARIF AU POIDS

ADVANCE CHARGES
À COMPTÉ

EXCESS VALUE
VALEUR EXCÉDENTAIRE

TOTAL CHARGES
FRAIS TOTAUX

CONSIGNEE / DESTINATAIRE
FORM NO. 10-100 (REV. 04/81)

R. R. R. - Zawitz

2. 4805

L 568898

✓

591269

✓

70

✓

618211

✓

12

✓

13

✓

14

✓

15

✓

16

✓

Geikie Twp.(M.320)

English Twp.(M.787)

Hincks Twp.(M.223)

Hutt Twp.(M.943)

THE TOWNSHIP
OF

ZAVITZ

DISTRICT OF
SUDBURY

LARDER LAKE
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	Ⓟ
CROWN LAND SALE	C.S.
LEASES	Ⓛ
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	—
IMPROVED ROADS	—
KING'S HIGHWAYS	—
RAILWAYS	—
POWER LINES	—
MARSH OR MUSKEG	—
MINES	✕
CANCELLED	C.

NOTES

400' SURFACE RIGHTS RESERVATION ALONG THE
SHORES OF ALL LAKES AND RIVERS.

DATE OF ISSUE

JAN 14 1983

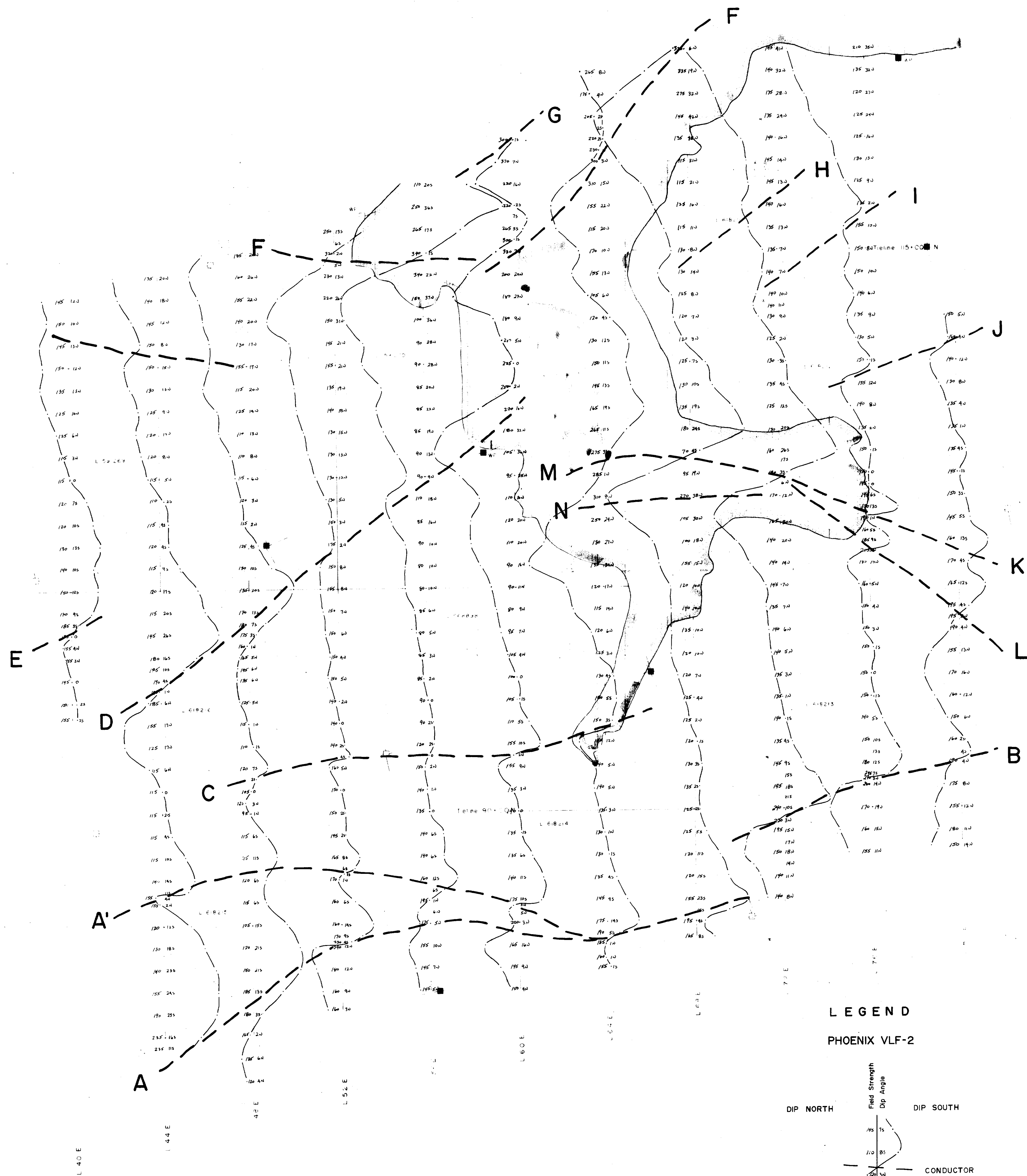
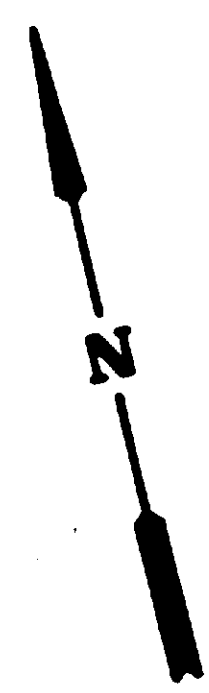
Ministry of Natural Resources
TORONTO

PLAN NO. M. 1189

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

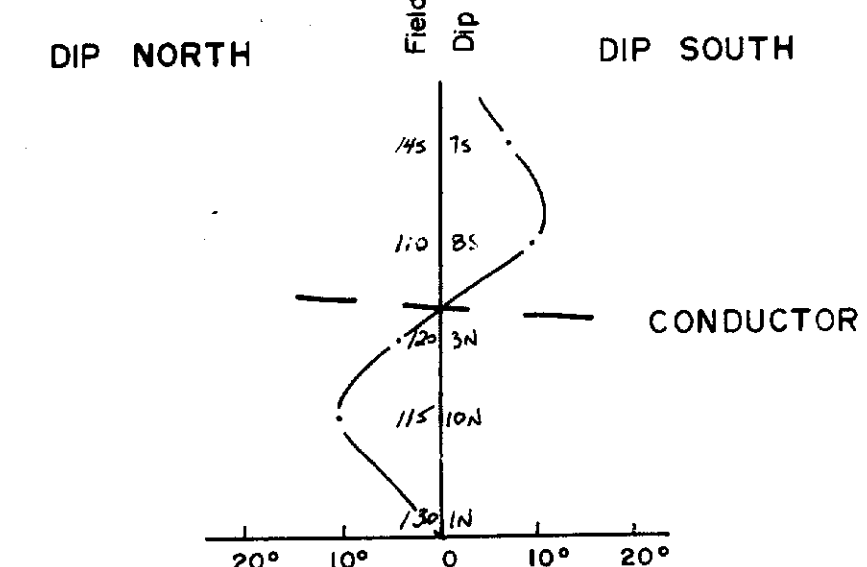


42A035E0164 2.4805 ZAVITZ

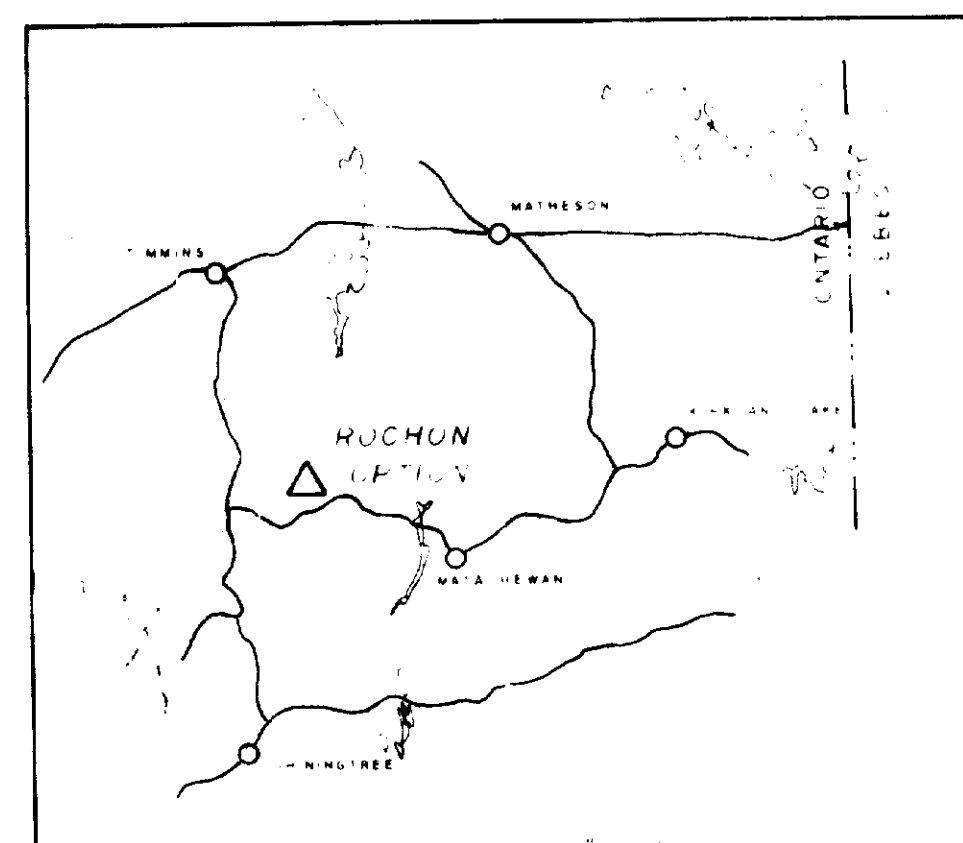
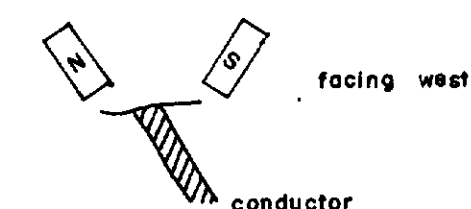


LEGEND

PHOENIX VLF-2



CUTLER
17.8 KHZ



FALCONBRIDGE NICKEL MINES LIMITED

ROCHON OPTION
VLF-EM PLAN

SCALE: 1" = 200'

14 April 1982 Operator: I.R. Morrison

J.R. Morrison 14 May 2, 4902