

Troudor Resources



41015SE0086 2.5002 SWAYZE

010

404-850 W Hastings ST

Vancouver BC

V6C-1E1

VLF - EM AND MAGNETOMETER SURVEY

ON THE

CREE LAKE GOLD PROSPECT

OF

TROUDOR RESOURCES INC.

SUDBURY DISTRICT, ONTARIO

CLAIMS: unpatented mining claims no.s

P. 412388 to P. 412392 inclusive

P. 412398 to P. 412407 inclusive

MINING DIVISION: Porcupine

LOCATION: In the southwest quarter of Swayze Township, District of Sudbury, Ontario, covering the central part of Cree lake area.

LONGITUDE 82° 42'W LATITUDE 47° 48'N, NTS: 41 0/15

SURVEY DATES: March 21 - 27, 1982

May 5, 1982
Vancouver, B.C.

D.R. MacQuarrie
Ronald F. Sheldrake
Apex Airborne Surveys Ltd.

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STATEMENT OF COSTS - follows APPENDIX I

1. SUMMARY

During the period March 21 - 27, 1982, 24.5 linear kilometers of VLF-EM and magnetometer survey were completed on the Cree Lake Gold Prospect of Troudor Resources Inc. This work program outlined numerous geophysical anomalies, several of which may be related to mineralization. Further geophysical and geological work is recommended.

2. INTRODUCTION

This report presents the results of ground VLF electromagnetometer and magnetometer surveys undertaken over the Cree Lake Gold Prospect of Troudor Resources Inc.

The survey area is located in the southwest corner of Swayze Township, District of Sudbury, Ontario. The claims cover the central part of Cree Lake and extend some 2 km east to Cuckoo Lake.

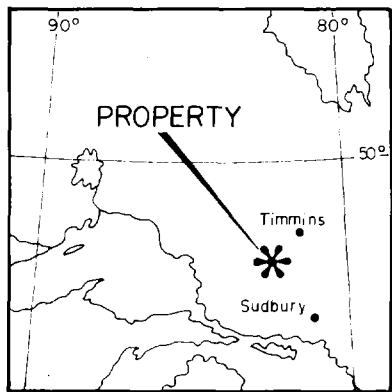
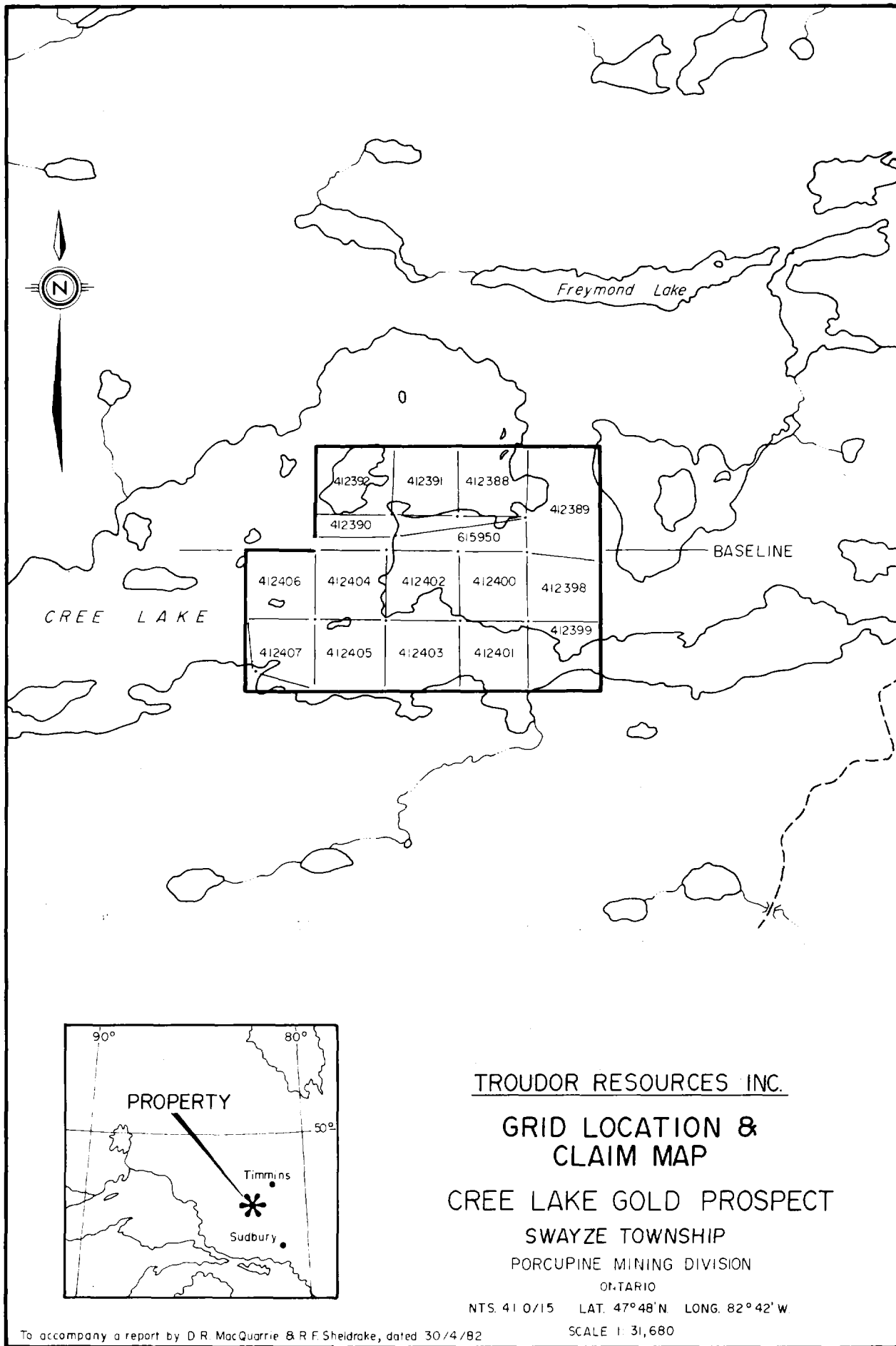
Access to the property is by air from Gogama, located on Highway 144, 45 miles to the east. Tractor roads lead north from Sultan, on the C.P.R. railway, to the eastern section of Cree Lake.

The claims cover a gold discovery which was first worked by Buffalo Canadian Mines Ltd. in 1933 - 1934. In 1961 - 1962, Flint Rock Mines Limited re-sampled the old trenches and completed 34 short diamond drill holes. There is no record of further work until the present.

During the period March 21 to 27, 1982 a total of 26.4 line/km of grid line, and 24.5 1/km each of VLF/EM and ground magnetometer survey were completed. The work program was carried out by S. Young of 4051 Selkirk Street, Vancouver, B.C. and by J.K. Filo of 256 - 8th Avenue, Timmins, Ontario. The readings were taken at 25 metre intervals along N-S bearing

grid lines spaced 100 metres apart (See PLATE 1). Large sections of the survey were located on the ice of Cree Lake.

The purpose of the geophysical surveys was to aid in the geological interpretation of the previously discovered showings and to determine if further zones of mineralization could be detected.



TROUDOR RESOURCES INC.

**GRID LOCATION &
CLAIM MAP**

CREE LAKE GOLD PROSPECT

SWAYZE TOWNSHIP

PORCUPINE MINING DIVISION

ONTARIO

NTS. 41 0/15 LAT. 47°48'N LONG. 82°42'W

SCALE 1: 31,680

To accompany a report by D.R. MacQuarrie & R.F. Sheldrake, dated 30/4/82

3. DATA PRESENTATION

PLATE 1 Scale: 1:2500

VLF-EM Profiles and interpretation of the inphase and quadrature components of the vertical secondary magnetic field. The profiles have a vertical scale of 20% per cm.

PLATE 2 Scale: 1:2500

Ground Magnetometer Survey showing contacts and interpreted lineaments. Contours of total magnetic field in units of gammas. Contour interval 20 gammas.

4. GEOLOGY

The Property lies within the Swayze volcanic complex within the Abitibi Orogenic Belt. The complex is made up of meta volcanic and meta sedimentary rocks of acidic to basic composition.

Locally, the property is underlain by east trending, steeply dipping rocks of intermediate to mafic composition (see Donovan 1965, Cunningham 1982). The rocks are light to dark green in colour and are generally massive. Meta sediments are known to be intercalated with the volcanics from drilling by Canico and mapping by Falconbridge Nickel near the south boundary of the Troudor property. The meta sediments include greywacke, argillite, graphitic argillite, quartzite and iron formation. Small granitic intrusions have been noted in the vicinity of the property.

Four areas on the present property have been drill tested. Cunningham, 1982, labelled these areas A through D, and they are shown on PLATE 1 and PLATE 2. The showings are typically described as shear zones 30 to 100 cm wide, in mafic volcanics, mineralized with varying amounts of pyrite (minor chalcopyrite, galena and pyrrhotite) and variable amounts of quartz in veins from 0 to 100 cm wide. Strike of the zones appear to vary from N70°E to E-W, with steep dips.

¹ Taken from a report by L.J. Cunningham
"THE SWAYZE TOWNSHIP PROPERTY OF TROUDOR RESOURCES
INC."
March 1, 1982

Impressive values in gold have been reported from selected samples of the pyritic quartz. Cunningham suggests that the four locations indicate the presence of "probably 2 and possibly more stratigraphy horizons along which chemical exhalative activity resulted in gold enrichment. The gold occurrences are extraordinarily rich, narrow and found at discrete locations along interflow horizons within mafic volcanics".

ibid

5. DISCUSSION OF RESULTS

Regional Geophysics

In order to aid in the interpretation of the ground survey results a cursory examination of the recently published Cree Lake Sheet, Map 80 541, Airborne EM and Magnetic Survey was made. A few regional observations that are relevant to the Cree Lake property are discussed below.

- 1) Mapped iron formation, located 400 metres south of the east end of Cree Lake, correlates with a very strong input E.M. anomaly that runs the entire length of Cree Lake along its south shore. At a point near the south west corner of the claims, a second (generally two channel) anomaly diverges from the main anomaly and strikes due west to the end of Cree Lake. The main conductor correlates with a magnetic gradient of one to two hundred gammas.
- 2) A regional magnetic linear is interpreted to cross the property in the vicinity of showing A. It has an apparent strike of N33°W, subparallel to the Brett Lake fault indicated on the Swayze geological map 2070.
- 3) The Cree Lake property correlates with a regional magnetic low feature. The magnetic characteristic of these rocks has more of a similarity to the signature of the acidic volcanics south west of Brett

Lake than it has to the mapped equivalent mafic volcanics located north west of Brett Lake. This information suggests that either the mafic volcanics in the Cree Lake area are very thin or that they exhibit some reverse remanent magnetization.

Ground Geophysics

The VLF-EM Profile Map, Plate 1 contains numerous cross overs with peak to peak in-phase responses of greater than 100%. Most of these responses are believed caused by bedrock topography changes along the shoreline of the mainland and the islands. However, the conductors labelled 1 through 8, may be caused by conducting shear zones which could contain mineralization. A detailed discussion of each of these zones follows.

Anomaly 1 - is located between 50 and 75 metres north of the baseline, from L 600 to L 200 east. The source appears to be a poor conductor, possibly a shear zone. It overlies a magnetic gradient area which may represent a transition zone from more Felsic volcanics on the south to more mafic volcanics to the north. It approximately correlates with the South Interflow Horizon postulated by Cunningham. Trenching and/or induced polarization surveys are recommended.

Anomaly 2 - crosses L 800 E at 0 + 40 north. It has an apparent strike of N30° West and is continuous from L 800 to L 500 East. It is a poor conductor but it correlates in position and strike with the regional

magnetic linear previously mentioned. For these reasons, and its near vicinity to mineral showing 'A', this anomaly should be investigated by further trenching and/or I.P. surveys.

Anomaly 3 - is essentially a one station anomaly located at 1 + 35 N on L 400 E. It overlies an east-west trending magnetic gradient area, which may represent another flow boundary.

Anomaly 4 - exhibits both an in-phase and quadrature EM response. It is located at approximately 1 + 75 S on L 600 to L 800 E, and correlates with a distinct, wide, 50 gamma magnetic low. This anomaly is probably caused by a sudden change in bedrock topography. However, other interpretations are possible, therefore, a test line of I.P. and resistivity sounding is recommended.

Anomaly 5 - has a weak VLF response located between L 400 and L 700 E at 0 + 75 to 1 + 00 metres south of the baseline. It is adjacent to a magnetic gradient area and again may represent an interflow boundary or a change in bedrock topography. Again, I.P. - resistivity test lines are recommended.

Anomaly 6 - is located at approximately station 4 + 00 N between L 500 and L 200 W. The anomaly appears to be related to changes in bedrock topography, however, it does correlate with a magnetic gradient feature that is coincident with mineral showings 'B' and 'D'.

Anomaly 7 - represents a change in conductivity, subparallel to anomaly 6 located at 2 + 50 N on L 500 W. It is coincident with a magnetic gradient area that appears to be related to showing B. Trenching or detailed I.P. surveys are suggested.

Anomaly 8 - is located at 2 + 00 S on L 100 E to L 200 E. It is coincident with east west trending magnetic linears and gradients. This zone should also be tested with an I.P. test line.

No responses by the VLF-EM system are noted along the south part of the survey. This suggests that the source of the input airborne anomalies shown on Map 80 541 are probably located deeper than the detection limit of the VLF technique.

The other un-numbered anomalies shown on Plate 1 are believed caused solely by bedrock topography changes.

6. CONSLUSIONS AND RECOMMENDATIONS

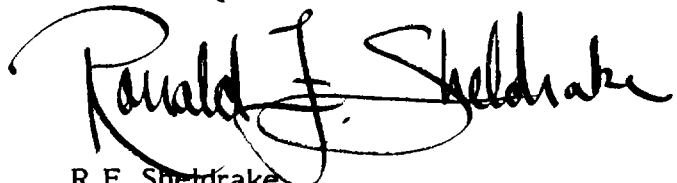
In light of the foregoing discussion, 8 line km of Induced Polarization surveying is recommended for the Cree Lake property. Most of this work (6 1/km) should be concentrated in the vicinity of anomalies 1 through 5 and showing 'A' and 'C'. The remaining two 1/km of survey would comprise test lines on the island near showings 'B' and 'D' and also to test anomaly 8. I recommend that the dipole - dipole array be used, with an "a" spacing of 10 metres and an "n" spacing equal to 1, 2 and 3. If local overburden conditions greatly exceed 10 metres in thickness the gradient array, oriented with the current electrodes in an east-west direction, would maximize the I.P. response of long, thin, steeply dipping chargeable sources, of the type noted in showing 'A'.

Any anomalous I.P. responses in the vicinity of the interpreted VLF - MAG anomalies may be due to mineralization. Pending positive results to the I.P. survey, trenching and/or diamond drilling would be warranted.

Respectfully submitted,



D.R. MacQuarrie



R.F. Sheldrake

APEX AIRBORNE SURVEYS LTD.

REFERENCES

- Cree Lake Sheet, Airborne EM and Magnetic Map 80 541
published by the Province of Ontario Geological Survey.
- Cunningham, L.J., 1982, 'Report on the Swayze Township Property of
Troudor Resources Inc., Porcupine Mining Division, Ontario.'
- Donovan, J.F., 1965, 'Geology of Swayze and Dore Townships'
Ontario Department of Mines, Geological Report #33.
- Lewin, E.M., 1962 - 63, Drill Logs, Flint Rock Mines Ltd.
Assessment Records,
O.G.S. Assessment Records, Timmins, Ontario.
- McKechie, D.C., 1962, Report on Flint Rock Mines Ltd.
Swayze Township,
O.G.S. Assessment Records, Timmins, Ontario.

APPENDIX 1

INSTRUMENTATION

Magnetometer

Manufactured by Scintrex Ltd., Ontario, Canada.

Model #MP-2, Serial #7910521.

Total field, proton precession type, sensitivity 1 gamma.

VLF - Electromagnetometer

Manufactured by Geonics Ltd., Toronto, Canada.

Model EM-16.

Type of measurement made:

- 1) Percent, of the vertical secondary field.
- 2) Percent, of the quadrature component of the vertical secondary field.

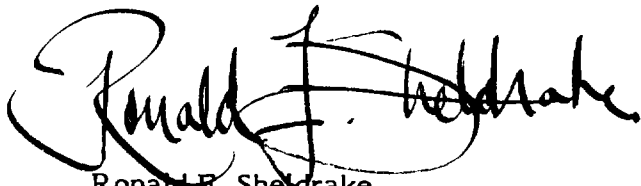
Station used: NAA, Cutler, Maine, U.S.A., frequency 17.8 khz.

All readings taken facing north.

CERTIFICATION

I, RONALD F. SHELDRAKE, of the City of Vancouver, Province of British Columbia, hereby certify as follows:

1. I am President of APEX AIRBORNE SURVEYS LTD., a company incorporated under the laws of the Province of British Columbia.
2. The Vancouver Office of Apex Airborne Surveys Ltd. is located at Suite 512 - 625 Howe Street, Vancouver, British Columbia.
3. I received my B.Sc., in Geophysics from the University of British Columbia in May 1974.
4. I have practised my profession since that date.
5. I have not visited the Cree Lake Property of Troudor Resources Ltd. However, my report dated May 5, 1982 is based on:
 - a) Published government maps and reports.
 - b) Private report by L.J. Cunningham dated March 1, 1982.
 - c) Field work performed by S. Young and J.K. Filo, which is believed reliable.
6. I have no interest, direct or indirect, in Troudor Resources Ltd. or its affiliates, nor do I expect to receive any.
7. I consent to the use of this report, in its entirety, in conjunction with a Prospectus or in a Statement of Material Facts.



Ronald F. Sheldrake
Geophysicist

May 7, 1982

CERTIFICATION

I, DOUGLAS R. MACQUARRIE, of the City of Vancouver, Province of British Columbia, hereby certify as follows:

1. I am an employee of APEX AIRBORNE SURVEYS LTD., a company incorporated under the laws of the Province of British Columbia.
2. The Vancouver Office of Apex Airborne Surveys Ltd. is located at Suite 512 - 625 Howe Street, Vancouver, British Columbia.
3. I received my B.Sc., in Geophysics from the University of British Columbia in May 1975.
4. I have practised my profession since that date.
5. I have not visited the Cree Lake Property of Troudor Resources Ltd. However, my report dated May 5, 1982 is based on:
 - a) Published government maps and reports.
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7. I consent to the use of this report, in its entirety, in conjunction with a Prospectus or in a Statement of Material Facts.



D.R. MacQuarrie
Geophysicist

May 7, 1982

May 5, 1982

STATEMENT OF COSTS

TYPE OF SURVEY: LINECUTTING, VLF E.M. and MAGNETIC

DATE OF FIELDWORK: MARCH 21 - 27, 1982 (7 days)

LINE CUTTING KILOMETERS: 26.4 km

SURVEY KILOMETERS: 24.5 km

TOTAL COST OF SURVEY: \$10,000.00

ADDITIONAL COSTS: NONE

COST PER LINEAR KILOMETER: \$384.62

2. -
April 29/83

Roger Barlow

You will note that the raw data has not been plotted. Jean Pature informed me by telephone that due to changes within the organization, the raw data was no longer available. I requested that he provide a letter of explanation which he did not.

Considering that we have had this report since Sept 20, 1982 can we allow to pass for assessment work credits as is?

Fred Matthews

Approved R. Barlow
May 2/83



Ministry of
Natural
Resources

RECEIVED	
Land Management Branch	
CIRCULATE	<input type="checkbox"/>
COMMENTS PLEASE	<input type="checkbox"/>
BY	
APR 25 1983	
E. F. ANDERSON	
J. R. MORTON	
J. C. SMITH	<input checked="" type="checkbox"/>
G. SHERMAN	

Your file:

Our file: 2.5002

1983 03 31

M. Jean P. ^{PATRIG} ~~Ratine~~
P.O. Box 105
Spragge, Ontario
P0R 1K0

Dear Sirs:

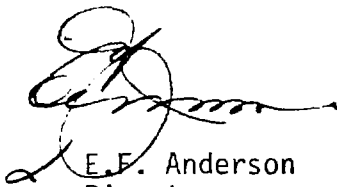
RE: Geophysical (Electromagnetic and Magnetometer)
Survey submitted on Mining Claims P 412388 et al
in the Township of Swayze.

Enclosed are the plans, in duplicate, for the above-mentioned survey. In order to complete your submission we require the following:

- a) the maps must be signed by the author of the report. *done!*
- b) the V.L.F. maps must have the raw data plotted at each station point. *??*

For further information, please contact Mr. F.W. Matthews at 416/965-1380.

Yours very truly,



E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1380

A. Barr:mc

Encls:

cc: Mining Recorder
Timmins

*Speak to Mr Matthews April 11 1983
he says maps ok!
RFS.*



AIRBORNE SURVEYS LTD.

512 - 625 Howe St., Vancouver, B.C.
Canada V6C 2T6

Phone (604) 683-3934
Telex 04-51309

April 11, 1983

Mr. Jean P. Patrie
P.O. Box 105
Spragge, Ontario
POR 1K0

Dear Sir:

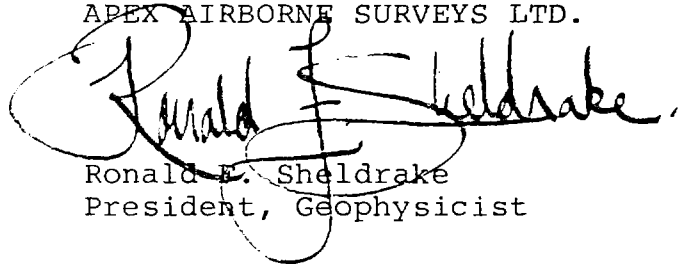
Further to your letter of April 4, 1983, I have signed the copies of the enclosed maps in accordance with the requirements of Mr. Anderson, Director of Land Management, Ontario Ministry of Natural Resources.

I'm puzzled by his second requirement (b) mentioned in his letter to you, however, since the VLF-EM data are already plotted as raw data.

Please call me if there are any further problems.

Yours truly,

APEX AIRBORNE SURVEYS LTD.



Ronald E. Sheldrake
President, Geophysicist

RFS/jay
Enclosure

1983 03 31

2.5002

M. Jean P. Patine
P.O. Box 105
Spragge, Ontario
P0R 1K0

Dear Sirs:

RE: Geophysical (Electromagnetic and Magnetometer)
Survey submitted on Mining Claims P 412388 et al
in the Township of Swayze.

Enclosed are the plans, in duplicate, for the above-mentioned survey. In order to complete your submission we require the following:

- a) the maps must be signed by the author of the report.
- b) the V.L.F. maps must have the raw data plotted at each station point.

For further information, please contact Mr. F.W. Matthews at 416/965-1380.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1380

A. Barr:mc

Encls:

cc: Mining Recorder
Timmins



Dec 2/82

Mining Lands Comments

- maps not signed

To: Geophysics

Mr. Barlow

Comments

- ULF maps must contain
readings plotted

Approved

Wish to see again with corrections

Date

Jan 31 83

Signature

Ryan RLW

To: Geology - Expenditures

Comments

Approved

Wish to see again with corrections

Date

Signature

To: Geochemistry

Comments

Approved

Wish to see again with corrections

Date

Signature

LD

1982 09 20

2.5002

Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

We have received reports and maps for a Geophysical (Electromagnetic and Magnetometer) Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining Claims P 412388 et al in the Township of Swayze.

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:sc

cc: Jean P. Patine
Spragge, Ontario

cc: D.R. MacQuarrie
Vancouver, B.C.



Mining and Lands
Commissioner

416/965-1824 Box 330,
24th Fl.,
700 Bay Street,
TORONTO, Ontario.
M5G 1Z6

REFER OUR FILE #27189

July 30, 1982.

RECEIVED

AUG 1 1982

MINING LANDS SECTION

Mr. F.W. Matthews,
Ministry of Natural Resources,
Room 6450, Whitney Block,
Queen's Park,
Toronto, Ontario.

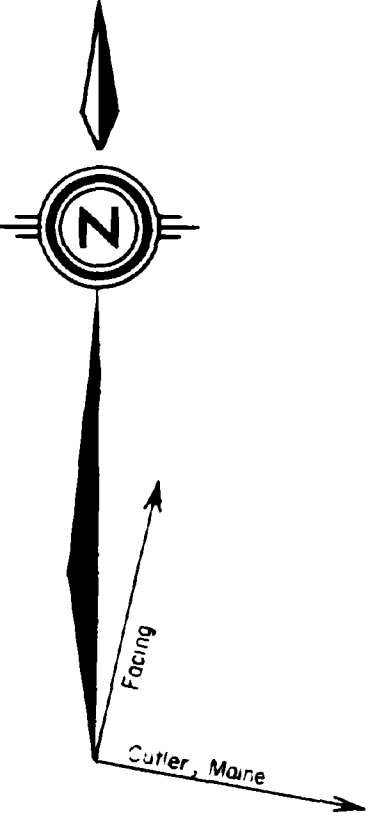
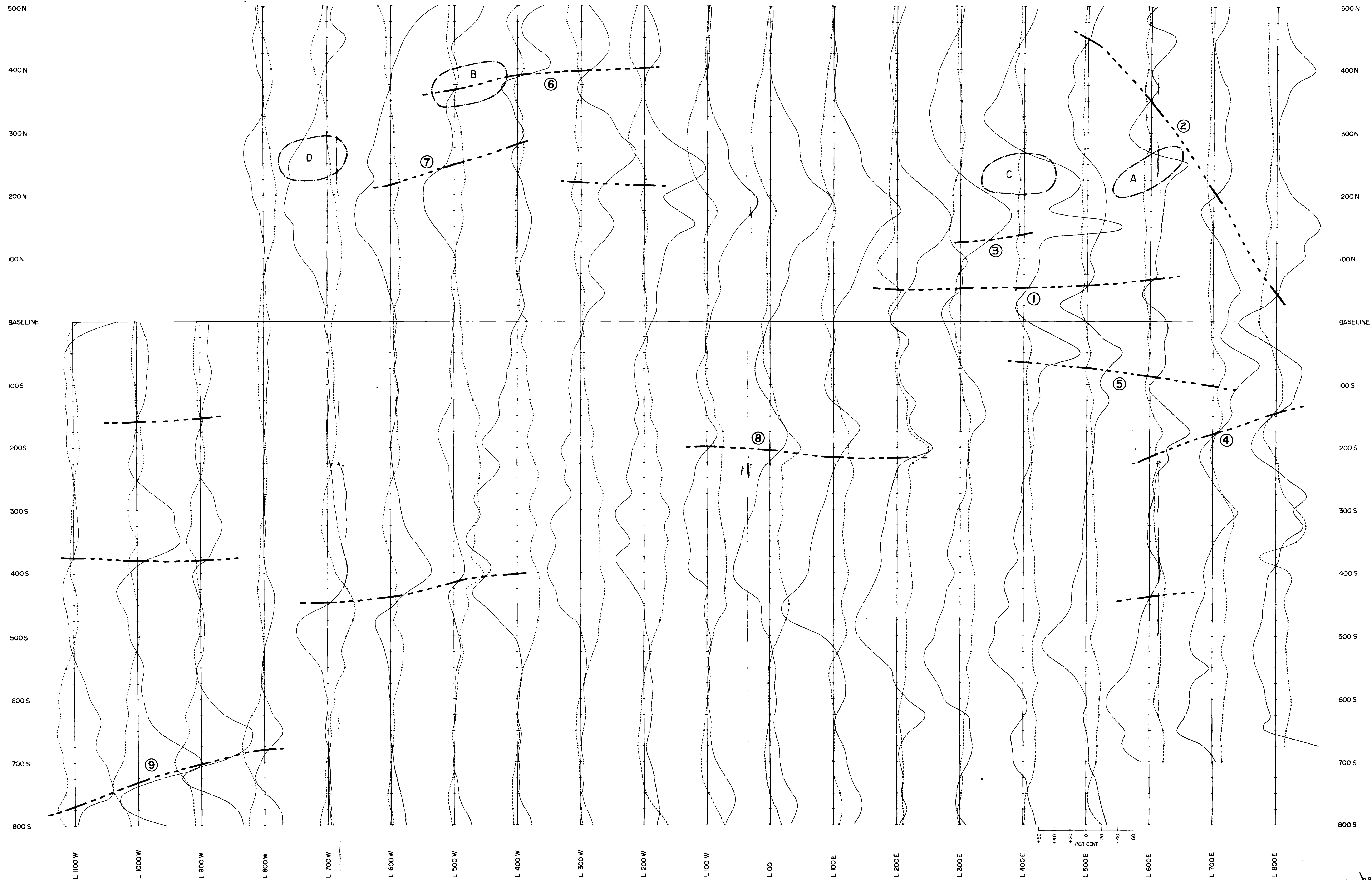
Dear Sir:

Enclosed please find copy of report for VLF-EM
and Magnetometer Survey on the Cree Lake Gold Prospect of
Trouder Resources Inc., which were received in this office
today. We believe they should have been forwarded to your
office.

Yours very truly,

(Mrs.) J. Kinsella,
Administrative Assistant.

J/jk
Encl.



NOTES
 INSTRUMENT GEONICS EM-16
 TRANSMITTER CUTLER, MAINE
 READINGS COLLECTED FACING N
 UNITS OF MEASUREMENT %

LEGEND
 (4) INTERPRETED ANOMALY
 (A) AREA REFERED TO BY CUNNINGHAM 1982
 - - - CONDUCTOR AXIS

PLATE I

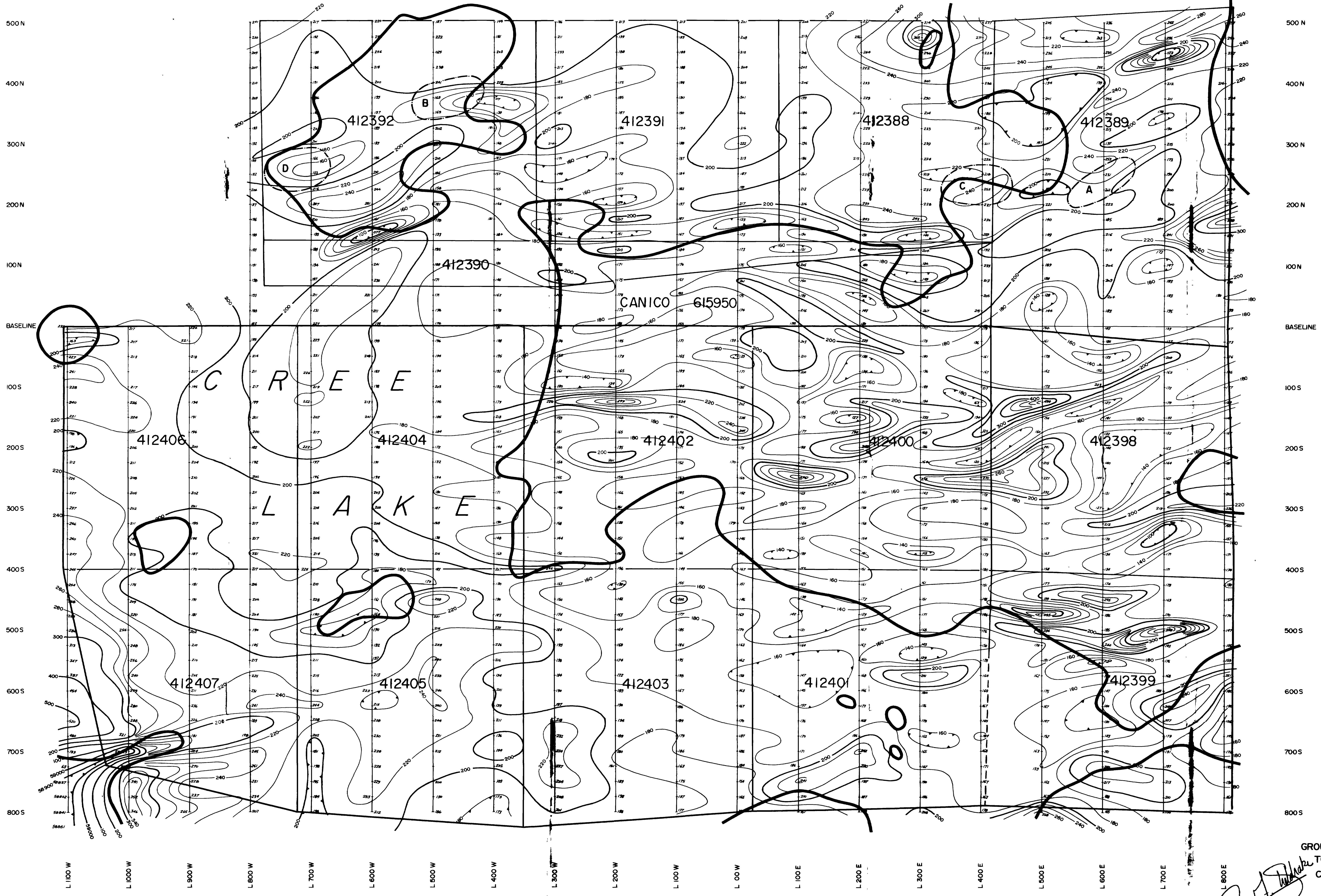
VLF-EM PROFILES
 CREE LAKE GOLD PROSPECT
 SWAYZE TOWNSHIP
 PORCUPINE MINING DIVISION
 ONTARIO
 FOR
 TROUDOR RESOURCES INC.
 NTS 41 0/15 LATITUDE 47°48'N LONGITUDE 82°42' W
 CREE LAKE SHEET

To accompany a report by D.R. MacQuarrie, dated 30/4/82



200

45002



NOTES
 DECLINATION 7° W
 INCLINATION 75° N
 UNITS OF MEASUREMENT -
 GAMMAS (10⁻⁵ OERSTED)
 CONTOUR INTERVAL 20 GAMMAS
 INSTRUMENT SCINTREX MP-2
 BASE LEVEL 59,000 GAMMAS

LEGEND
 (A) AREA REFERRED TO
 BY CUNNINGHAM 1982

PLATE 2
 GROUND MAGNETOMETER SURVEY
 TOTAL FIELD CONTOUR MAP
 CREE LAKE GOLD PROSPECT
 SWAYZE TOWNSHIP
 PORCUPINE MINING DIVISION
 ONTARIO
 FOR
 TROUDER RESOURCES INC.
 NTS. 41 0/15 LATITUDE 47° 48' N. LONGITUDE 82° 42' W
 CREE LAKE SHEET
 To accompany a report by D.R. MacQuarrie and R.F. Sheldrake, dated 30/4/82

