

42809NE0019 2.15499 MONTCALM

REPORT ON A
HLEM/MAGNETIC SURVEY
CENTRAL BELFORD AND
SE BELFORD TWP. PROPERTIES

BELFORD, MONTCALM & NOVA TOWNSHIPS
PORCUPINE MINING DIVISION, ONTARIO

FOR
FALCONBRIDGE LIMITED

2.15499

April 1994

Submitted by: R.J. Meikle
Rayan Exploration Ltd.

R.J. Meikle



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- Appendix A - Apex Max-Min 11 Horizontal Loop
- Appendix B - EDA Omni IV Proton Magnetometer

INTRODUCTION

This report outlines the logistics, results and recommendations based on a HLEM/Magnetometer Survey performed on two properties during Jan-Feb, 1994, in the Belford Township area, Porcupine Mining Division, Timmins, Ontario, for Falconbridge Limited. The work was performed on a contract basis by Rayan Exploration Ltd., Timmins, Ontario.

The purpose of the program was to locate on the ground, several Airborne EM Conductors shown on the O.G.S. AEM Maps 81359, 81362, North Swayze- Montcalm Area, Airborne Electromagnetic Survey and Total Intensity Magnetic Survey.

The Conductors were located on the ground and the results are currently being evaluated with a possible drill program to test them.

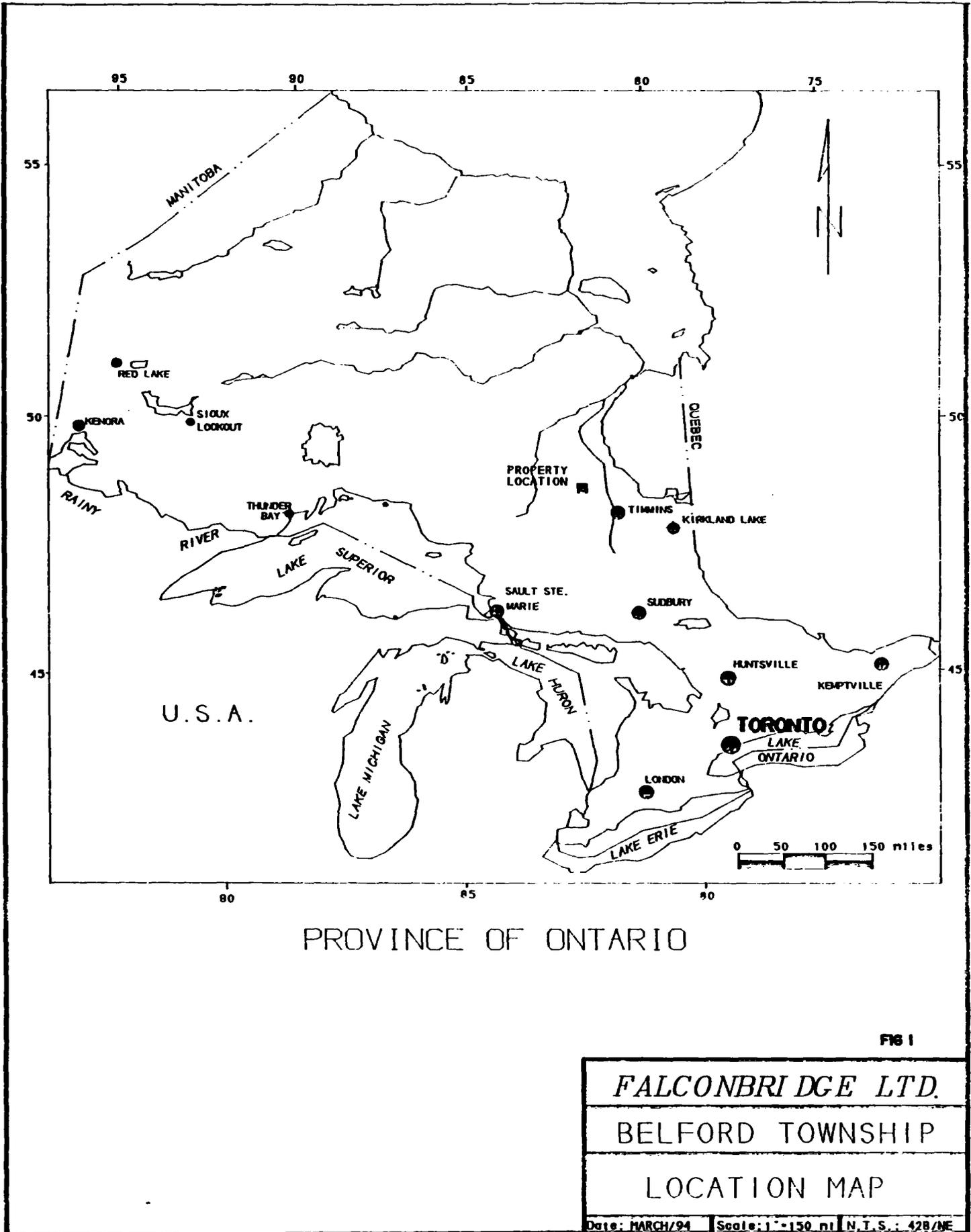
LOCATION AND ACCESS

The Central Belford Property consists of 2 claims (32 units) located in the central part of Belford Township, Porcupine Mining Division. The property is approximately 90km north-northwest of the City of Timmins, district of Cochrane, Ontario. More precisely, the centre of the property is at NTS Co-ordinate, 42 B/NE.

The SE Belford Property consists of 2 Block Claims (31 units), straddling the intersection of Belford, Montcalm and Nova Townships, Porcupine Mining Division, Ontario.

The property is approximately 7km south east of the Central Belford Twp. Property.

Access to both properties was by helicopter chartered from Timmins. A linecutting camp was established on each grid with the geophysical crew accessing both properties from a camp on the Ivanhoe River on the SE Belford property. Summer access can be via the Mallete logging road north west from Timmins to the Groundhog River, north on the river by boat to the mouth of the Ivanhoe River, then west on the Ivanhoe River to the property. However, two waterfalls on the Ivanhoe River necessitate portaging.



PROVINCE OF ONTARIO

FIG 1

<i>FALCONBRIDGE LTD.</i>
BELFORD TOWNSHIP
LOCATION MAP
Date: MARCH/94 Scale: 1" = 150 mi N.T.S.: 428/NE

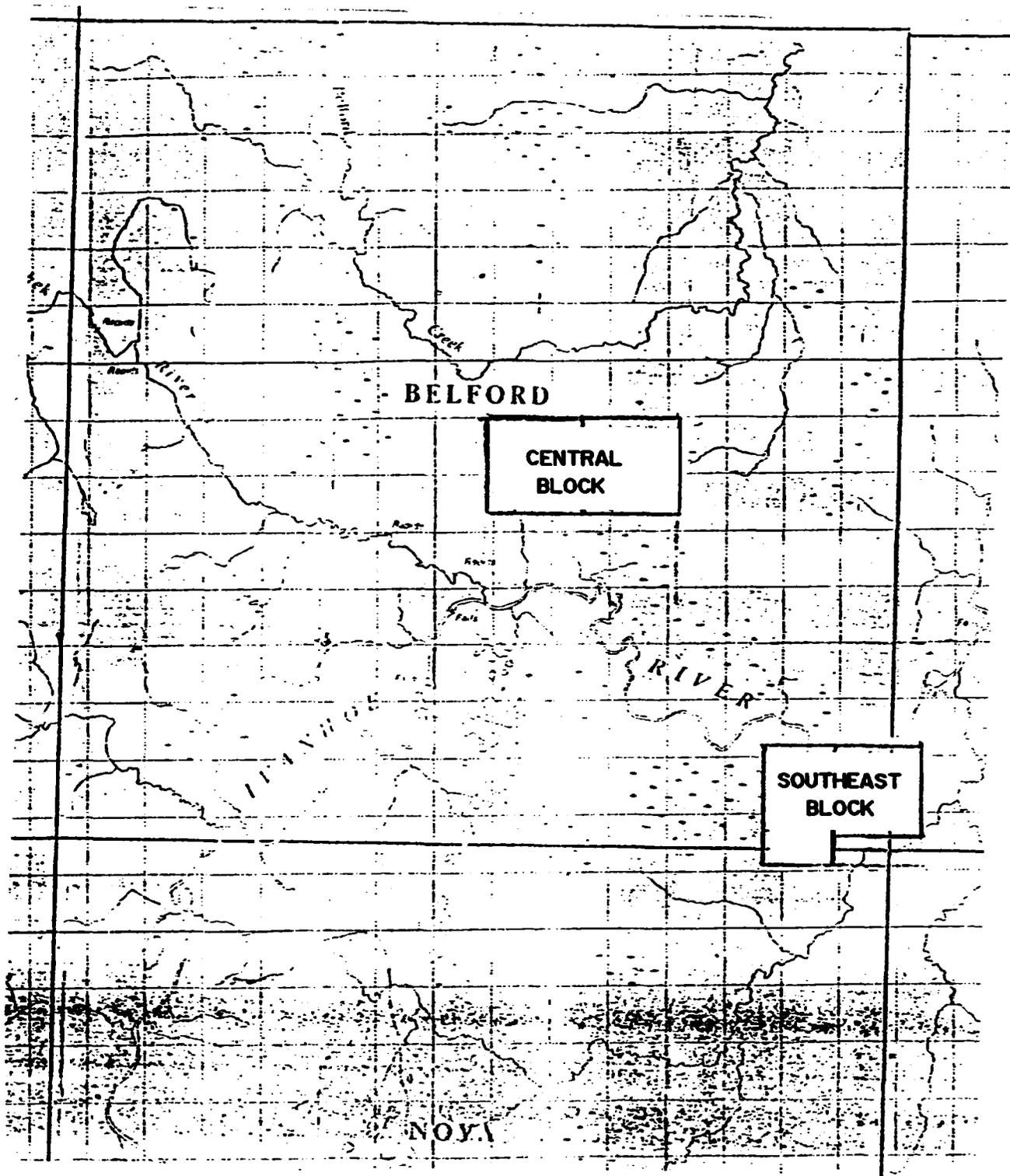


FIG 2

Client: FALCONBRIDGE LTD
 Property: BELFORD TWP
 Title: REGIONAL LOCATION MAP

Author	Geologist
Date	Scale
Project	Sheet
Area	Block



SCALE 1:100000

CLAIM STATUS**CENTRAL BELFORD PROPERTY**

The Central Belford Property consist of 2 contiguous unpatented Block Mining Claims in Belford Twp., Porcupine Mining Division, Ontario. The claims are held by Falconbridge Limited. The numbers are as follows:

1189252 - 16 units - 256 Ha - Belford Twp.

1189253 - 16 units - 256 Ha - Belford Twp.

SE BELFORD PROPERTY

The SE Belford Property consists of 2 contiguous, unpatented Block Mining Claims in SE Belford, SW Montcalm Twp. and NE Nova Twp., Porcupine Mining Division, Ontario. The claims are held by Falconbridge Limited. The numbers are as follows:

1189250 - 15 units - 240 Ha - Belford/Nova Twp.

1189251 - 16 units - 256 Ha - Belford/Montcalm Twp.

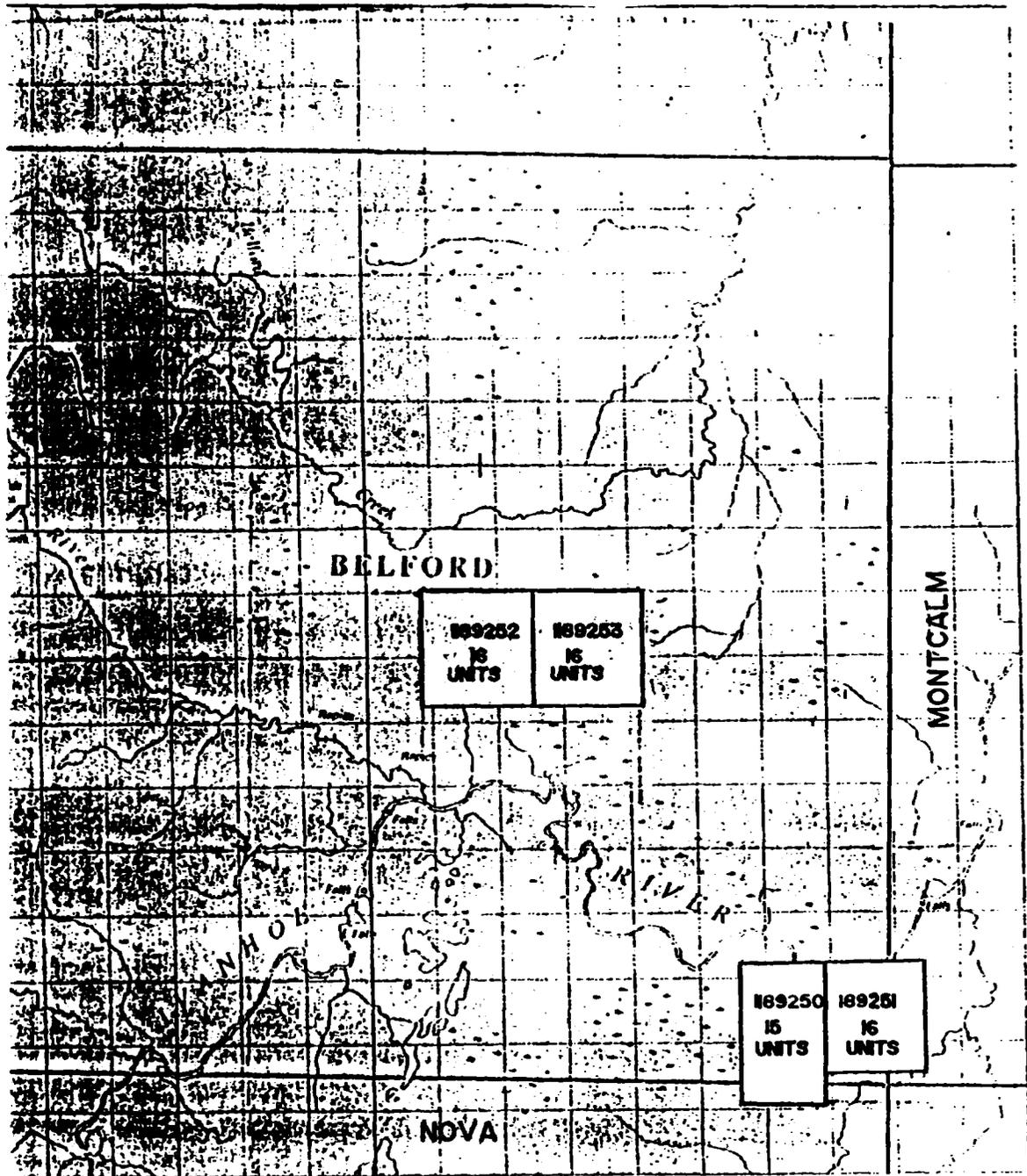


FIG 3

Client: **FALCONBRIDGE LIMITED**
 Property: **BELFORD TOWNSHIP**
 Title: **CLAIM SKETCH**

Prepared by	Checked by
Date	Scale
Revised by	N.T.S.
Drawn by	Project



RAYAN
EXPLORATION LTD



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REGIONAL GEOLOGY

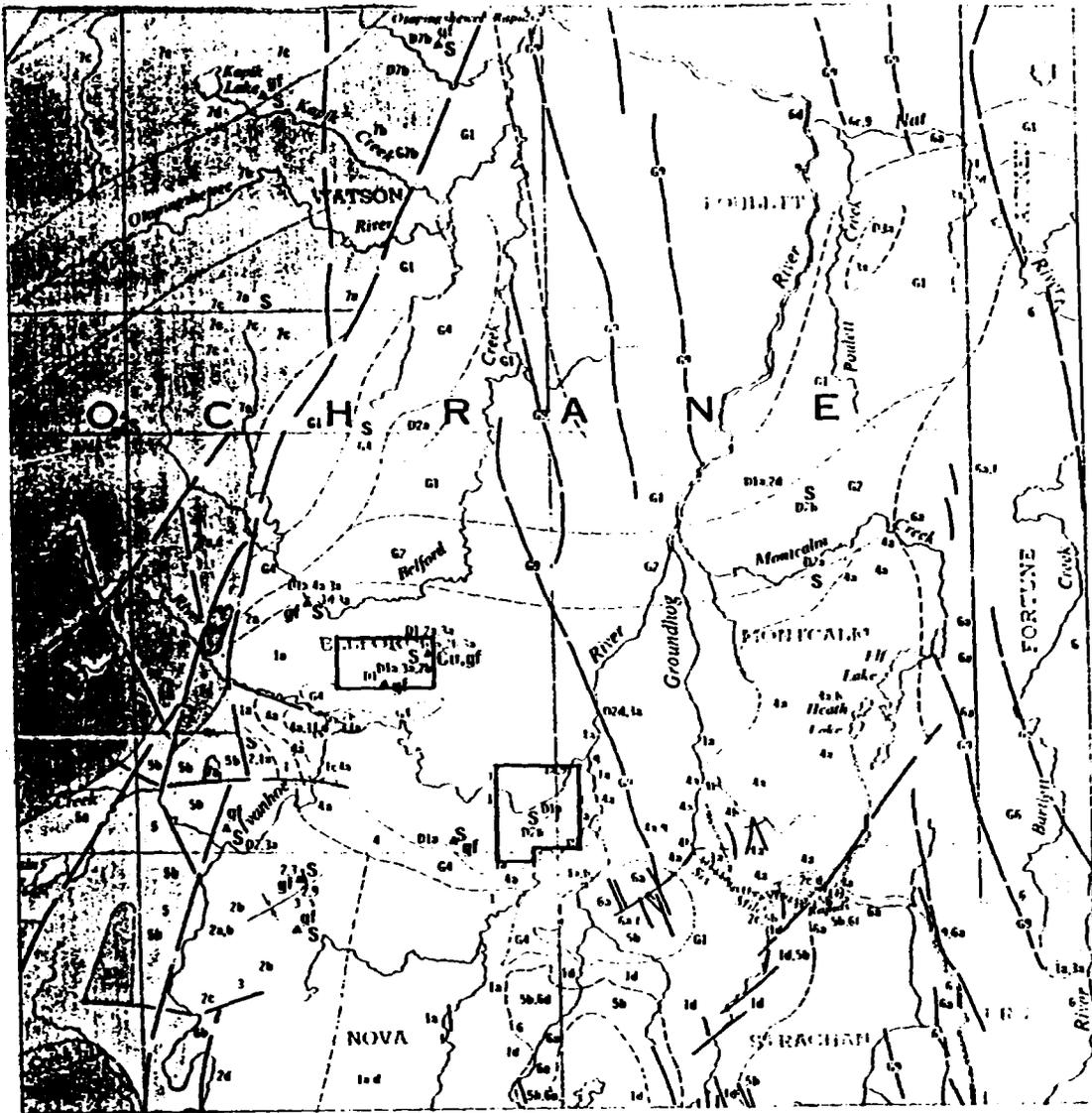
Both properties lie in a small belt of Archean Precambrian, Volcanics which covers parts of Watson, Belford, Nova, Poulett, Montcalm, and Strachan Townships. The belt is comprised of Mafic to Felsic metavolcanics and ultramafics. as well as felsic intrusives. The ultramafic unit in Montcalm Twp. hosts a Nickel deposit.

PROPERTY GEOLOGY

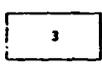
The Central Belford Property is believed to be underlain by mafic and felsic metavolcanics. The entire property is clay and muskeg covered with some drill indicated overburden depths of up to 60 meters. Previous drilling indicates minor amounts of Cp, Py, Po, and graphite mineralization. The best reported intersections were 13.5 ft. of 0.1% Zn and < 0.1% Cu. Another hole intersected 20 ft. of 0.02% Cu and 0.02% Zn, with both being on a Mafic/Felsic contact.

The SE Belford Property is believed to be underlain by mafic and felsic metavolcanics, with ultramafics in the southern part and northeast part of the property. The property is covered by clay and muskeg with overburden depth of at least 40 meters. Previous drilling intersected minor amounts of Gp, Sp, Po, Py, and Gf.

Both properties have a favourable environment for VMS Type Deposits.

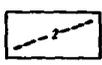


METASEDIMENTS⁹

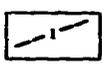
-  3 Unsubdivided^d.
- 3a Greywacke, arkose, quartzite.
- 3b Conglomerate.
- 3c Argillaceous, fine-grained metasediments.
- 3d Biotite-quartz-feldspar schist and gneiss.
- 3e Migmatized metasediments (10-25% granitic material).

METAVOLCANICS⁹

Felsic to Intermediate Metavolcanics

-  2 Unsubdivided^d.
- 2a Rhyolite to dacite flows and fragmental rocks.
- 2b Tuff, banded tuff, and lapilli-tuff.
- 2c Agglomerate, breccia.
- 2d Porphyritic flows, quartz-feldspar porphyry.

Mafic to Intermediate Metavolcanics

-  1 Unsubdivided^d.
- 1a Basalt to andesite (flows and porphyritic flows, massive to foliated).
- 1b Basalt to andesite pillow lava.
- 1c Mafic pyroclastic rocks.
- 1d Layered amphibolite.
- 1e Diorite, gabbro (coarse-grained flows or intrusions).
- 1g Migmatized mafic metavolcanics (10-25% granitic material).

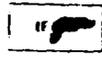
-  4 Iron formation (associated with 1, 2 and 3 map units).
- S Sulphide mineralization.

FIG 4

SCALE 1:253440

Client: FALCONBRIDGE LIMITED																	
Property: BELFORD TOWNSHIP																	
Title: GEOLOGICAL MAP																	
<table border="1"> <tr><td>Drawn by</td><td></td></tr> <tr><td>Checked by</td><td></td></tr> <tr><td>Approved by</td><td></td></tr> <tr><td>Date</td><td></td></tr> </table>	Drawn by		Checked by		Approved by		Date		<table border="1"> <tr><td>Drawn by</td><td></td></tr> <tr><td>Checked by</td><td></td></tr> <tr><td>Approved by</td><td></td></tr> <tr><td>Date</td><td></td></tr> </table>	Drawn by		Checked by		Approved by		Date	
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SURVEY PARAMETERS

LINECUTTING

A total of 122km of grid lines were cut, 61km on the Central Belford Property and 61km on the SE Belford Property. The Baselines and Tielines were run at 090 degrees TN with cross-lines spaced 100m apart running at 180 degrees TN. A picket interval of 20m was used. Metal tags were attached to the pickets with the line and station co-ordinates.

The linecutting was sub contracted to Native Exploration Services, Chibougamou, P.Q. The cutting was done between Jan 15/94 - Feb. 9/94.

MAGNETOMETER SURVEY

A total of 103km of Proton Total Field Magnetometer Survey was carried out with 52km on the Central Belford Property and 51km on the SE Belford Property. The following is a brief description of the theory and survey parameters used:

MAGNETOMER SURVEY

An EDA Omni Plus Proton Precession magnetometer was used to carry out the magnetometer survey. The instrument is synchronized with an EDA recording base station to help eliminate magnetic diurnal variation. This should ensure an accuracy of less than 10 Nt.

The Proton Precession method involves energizing a wire coil immersed in a hydrocarbon fluid. This causes the protons in the proton rich fluid to spin or precess simulating spinning magnetic dipoles. When the current is removed the protons precess about the direction of the earth's magnetic field, generating a signal in the same coil which is proportional to the total magnetic field intensity. In this way, the horizontal gradient of the earth's magnetic field can be measured and plotted in plan form with values of equal intensity joined to form a contour map.

This presentation is useful in correlating with other data sets to aid in structural interpretation. Individual magnetic responses can be interpreted for dip, depth and width estimates after profiling the data.

The following parameters were employed for the survey:

Instrument - EDA Omni Plus Proton Precession Magnetometer

Station Interval - 20m

Line Interval - 100m

Diurnal Correction Method - EDA Recording Base Station

Data Presentation - Magnetic Data Posting & Contours

- Map No.1, Central Belford Property
- Map No.4, SE Belford Property
- 1:5000 scale
- Contour interval = 20 nano-teslas
- Datum subtracted for plotting = 57000nT

HLEM SURVEY

A total of 103km of HLEM Survey was carried out with 52km on the Central Belford Property and 51km on the SE Belford Property. A coil separation of 200m was used, reading 444 and 1777Hz frequencies at a 20m interval. The following is a brief description of the theory and survey parameters used:

HORIZONTAL LOOP EM SURVEY

The Horizontal Loop EM survey was carried out with an Apex Max-Min II instrument. These surveys are commonly called "Max-Min" surveys in recent times.

The Max-Min II instrument can operate at five frequencies (3555HZ, 1777HZ, 888HZ, 444HZ, 222HZ)., and is capable of coil separations from 25 meters to 200 meters. Although it can be used in the vertical loop mode as well as minimum coupled, it is most often used in the Maximum Coupled, Co-Planer mode which is in effect a Horizontal Loop Electromagnetic Survey.

The instrument records the "In-Phase" and "Out-of-Phase" components of the anomalous resultant field from a conductor as a percentage of the primary field strength. Both components are used in the interpretation of the results. Generally, the larger the ratio of peak negative responses between In-Phase and Out-of-Phase, the higher the conductivity of the anomaly. A ratio of 1:1 is considered a medium conductor.

The purpose of reading more than one frequency is to obtain more information about the conductor itself as well as the conductivity of the overburden etc. The higher frequencies will respond to weaker conductive features such as faults, conductive overburden etc. As a result the signal from these frequencies can attenuate very quickly, possibly not penetrating to the bedrock at all. The lower frequencies having a longer wavelength tend to penetrate deeper and generally only respond to anomalies with a higher order of conductance,. Thus as with most geophysical techniques it is a trade off as to depth of penetration vs. conductance threshold detectable. The use of multi frequency surveys helps to alleviate this problem at a minimal extra cost.

The Max-Min survey was carried out using an Apex Max-Min II instrument reading 1777HZ, and 444HZ with a constant coil spacing of 200 meters. The Maximum Coupled mode was employed with the coils co-planer. A reading interval of 20 meters was used. Because of the very flat surface topography, no slope or topographic corrections were necessary.

The Max-Min data was recorded manually and entered in to an XYZ format using Watfile. The XYZ files were processed using Geopac software. Plotting was done on a pen plotter. A plan scale of 1:5000 was chosen with a profile scale of 1 cm = 10% for the 444Hz maps and 1cm = 20% for the 1777Hz. The results are presented on maps 1 and 3 in the back of this report.

RESULTS**SOUTH EAST BELFORD PROPERTY**

The HLEM survey outlined several EM conductors labelled A B C etc. on the HLEM - 1777Hz and HLEM - 444Hz maps. The conductors appear to correlate well with those shown on OGS map 8136 - North Swayze - Montcalm Area AEM Survey.

The Magnetometer survey outlined a N-S dike running approximately along L1200W which correlates with the Airborne Magnetometer results. Also, the southern part of the grid and the NE corner have a higher magnetic susceptibility which correlates with an Ultramafic unit shown on government maps. A similar E-NE striking mag feature is outlined running parallel to and 60m north of conductor B which is the strongest conductor on the grid. This mag feature is interpreted to lie on or slightly north of the contact between mafic volcanics to the north and felsic volcanic to the south.

The EM conductors are individually described below:

CONDUCTOR A/A'

- weak conductor running from L12E/1680N to 19E/1940N
- parallel and 100m south of the Ivanhoe River
- on south flank of a mag low
- coincident with AEM conductor 72S/I
- response on L17E/1860N interpreted to be approximately 30m deep and 3 mhos
- it should be noted that the erratic readings on L22E/2040N and L23E/2020N, 2040 were repeated in the field. As they occur on adjacent lines at the same northing, on Conductor A, they were not deleted.

CONDUCTOR B/B'

- runs EW from L5E/1340N - L30E/1730N
- parallel to and 60m south of a linear mag high
- previous work indicates the conductor is at contact between felsic volcanics to the south and mafic volcanics to the north.
- coincident with an AEM conductor detected on all flight lines across the property
- the conductor is strongest between L16E/1470N - L20E/1600N
- depth to source/conductivity values are
 - L18E/1530N - 55m, 15 mhos
 - L19E/1580N - 50m, 10 mhos
 - L24E/1710N - approx. 20m, <3 mhos
 - L25E/1710N - approx. 20m, <3 mhos
- appears to be coincident with a vertical loop conductor tested with 3 drill holes by AREA MINES, 1966.

CONDUCTOR C

- weak
- EW from L8E/900N - L12E/870N
- no coincident mag
- no AEM correlation

CONDUCTOR D

- EW from L21E/990N - L24E/1030N
- possibly on north flank of mafic volcanic/ultramafic contact
- coincident with AEM conductor 235E/B and 74/2N - B
- response on L22E/1010N indicate a depth of 40m and conductivity of <3 mhos

CONDUCTOR E/E'

- weak conductor from L29E/1010N - L32E/1200N open to the east
- similar to conductor D, probably on mafic/ultramafic contact
- coincident with AEM conductors 76N/C, 77S/F

CONDUCTOR F/F'

- from 29E/440N - L16E/600N
- F & F' are probably same feature, off set by a mag dike on L13E
- insufficient coverage on L9E - L11E
- on north flank of mag low
- no AEM response
- coincident with a creek and beaver pond

CENTRAL BELFORD PROPERTY

The HLEM Survey outlined seven conductors which correlate reasonably well with the OGS Map 8136 and 81358, "North Swayze - Montcalm Area" AEM/MAG Survey results. The ground EM conductors have been labelled A-G. On conductors "C", "E", and "F", there is a possibility of closely spaced, parallel conductors. With the 200 meter coil separation used, the horizontal resolution is not sufficient to verify this and accurately interpret the axis of each. Some of the conductors have a coincident magnetic high associated with them. The following is a description of each individual conductor with reference made to the magnetic survey, previous work and AEM Survey:

CONDUCTOR "A"

- a weak conductor running NE from L6E/1520N - L8E/1660N
- open to the NE
- no mag correlation
- interpretation is approx. 70m deep and 7 mhos
- no AEM correlation

CONDUCTOR "B"

- a weak to mod. cond. striking SW from L12E/1220N - L16E/1080N
- coincident (100nT) mag high
- isolated mag high on L13E/1080 of approx. 600nT with a north dip. this is approx. 70m south of the interpreted cond. axis.
- there is a possible NW striking dike cutting the conductor in the vicinity of L14E
- this conductor is approx. 300m north of cond. "C"
- interp on L16E/1080N is 100m deep and 15 mhos
- may be same feature as cond. "B'" on L19E/1000N but there is no apparent mag association.
- there is no apparent AEM correlation.

CONDUCTOR "C"

- This is a mod to strong conductor running from L11E - L19E.
- The west end is interpreted to have parallel conductors on L11E @ 650N & 760N, and L12E @ 690N & 780N with the southern conductor on these two lines having a coincident 40nT mag high
- the remainder of the conductor has no coincident mag but is approx. 100m north of and parallel to a linear mag high of up to 1000 nT above background.
- the conductor appears to be dipping steeply to the south
- interpretation on L14E/770N = approx. 50m deep and 12 mhos
L17E/770N = approx. 90m deep and 90 mhos
- appears to be coincident with a linear AEM conductor

CONDUCTOR "D"

- is a weak to mod. cond. striking EW from L18E/580N - L26E/460N
- it is south of and parallel to the same linear mag high to the south of cond. "C".
- interpretation on L24E/500N = approx. 82m deep and 11 mhos
- the highest conductivity is on lines 18E, 19E, 24E, and 25E.
- a N/NW striking dike is interpreted from the mag data to cut the conductor between L25E and L26E.
- the cond. appears to be coincident with AEM conductors 48/2N-D and 49/2S-E, both 11-12 channel conductors.

CONDUCTOR "E"

- a strong conductor striking E/NE from L22E/690N - L34E/600N
- no mag correlation
- appears to be coincident with AEM conductors 48/2N-E, 49/2S-D, 50N-D, 51S-F, 52N-D, which all 11-12 channel conductors.
- the mag data suggests a N/NW striking dike cutting the conductor in the area of L24E-L25E.
- it is likely that conductor "E" is one and the same as conductor "C" with the above mentioned dike interrupting and possibly off-setting "D" slightly to the south or vice versa.
- interpretation for L24E/720N = approx. 70m deep and 60 mhos
L31E/730N = approx. 60m deep and 28 mhos
- interpretation on L31E may not be too accurate due to parallel conductor "F" to the north.
- cond. "E" converges with cond. "F" around L29E-L30E, and swings to the SE.

CONDUCTOR "F"

- is a strong conductor which splits from cond. "E" and swings to the NE and then SE where it runs off the grid on L37E/760N
- no apparent mag correlation
- appears to be coincident with AEM conductors 51S-F, 52N-E, 53S-I, and 54N-E, which are all 11-12 channel conductors.
- horizontal resolution is poor on Lines 26E-30E due to close proximity to cond. "E" to the south.

CONDUCTOR "G"

- is a strong conductor striking EW from L29E/1400N - L37E/1480N, where it runs east off the grid.
- appears to have a south dip
- appears to be coincident with AEM conductors 51S-E, 52N-F, 53S-H and 54N-F, all 11-12 channel conductors.
- possibly coincident with a mag high slightly south of the cond.
- interpretation on L34E/1460N = approx. 50m deep and 80 mhos
L36E/1480N = approx. 60m deep and 60 mhos

CONCLUSIONS AND RECOMMENDATIONS

CENTRAL BELFORD PROPERTY

The survey results correlate well with the AEM Survey with the exception of conductor "B" which was not detected by the AEM Survey, possibly because it is too deep. Most of the conductors are quite conductive. In some cases horizontal resolution is difficult because of the large coil separation used. Using a shorter separation would most likely be ineffective because of the thick overburden. It is recommended that a thorough compilation of the current survey results and the previous drilling be done to establish which conductors have been tested.

Because of the favourable VMS type geological setting and previous intersections of Cu and Zn, it is recommended that a large loop Time Domain EM survey be conducted over most of the property. This survey would provide a better horizontal resolution of the parallel zones as well as better definition of the conductors especially the deeper ones such as "B".

SOUTH EAST BELFORD PROPERTY

The survey outlined several conductors. With the exception of conductors C and F, they all correlate well with the OGS AEM survey. Conductors A, B, C appear to be in the mafic/felsic volcanics, while Conductor D,E,F appear to be related to the Mafic Volcanic/Ultramafic contact.

Conductor B, particularly between L17E - L20E has the best conductivity. It would appear that it was tested by 3 drill holes by AREA MINES in 1966.

They report sulphide mineralization with minor amounts of calcophyrite and sphalerite in all three holes on a Felsic/Mafic contact. This is an excellent environment for VMS type deposits and deeper drilling is recommended in this vicinity as well as along strike on conductor B. It is recommended that the drill casing be left in and a down hole TEM survey done to test for massive sulphide mineralization deeper and off hole.

The other conductors should be rated on the results of drilling conductor B. With the extensive overburden cover in the area, the HLEM survey could quite likely miss a deep, conductive, sulphide zone. Because of the favourable geological setting, a deeper penetrating TEM survey may be warranted to delineate and test the Mafic/Felsic contact, and conductors A, C-F.

CERTIFICATION

I, Raymond Joseph Meikle of Timmins, Ontario hereby certify that:

1. I hold a three year Technologist Diploma from the Haileybury School of Mines, Haileybury, Ontario, obtained in May 1975.

2. I have been practising my profession since 1973 in Ontario, Quebec, Nova Scotia, New Brunswick, Newfoundland, NWT, Manitoba, Germany and Chile.

3. I have been employed directly with Teck Corporation, Metallgesellschaft Canada Ltd. Sabina Industries, .S. Middleton Exploration Services Ltd., self employed 1979-1985 (Rayan Exploration Ltd.) and currently with Rayan Exploration Ltd.

4. I have based conclusions and recommendations contained in this report on knowledge of the area, my previous experience and on the results of the field work conducted on the property during 1990.

5. I hold no interest, directly or indirectly in this property, nor do I expect to receive any interest or considerations from Falconbridge Limited.

Dated this 30th day of April, 1994
at Timmins, Ontario.

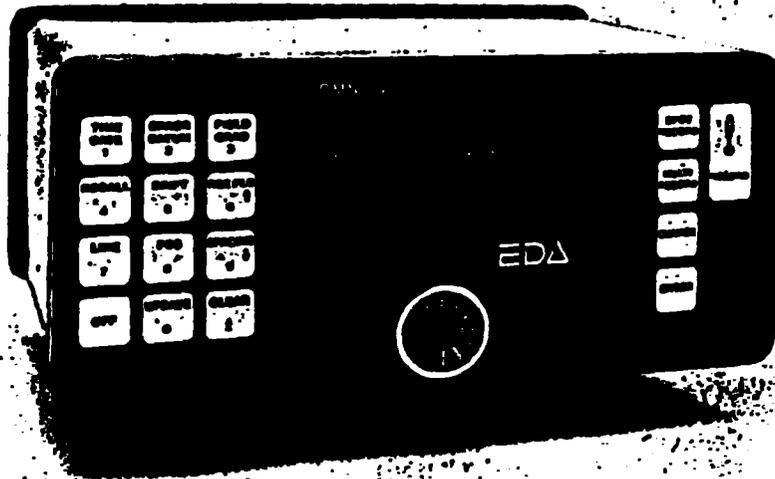


R.J. Meikle

APPENDIX A

OMNI IV Magnetometer

EDA



OMNI IV's Major Benefits

- **Four Magnetometers In One**
- **Self Correcting for Diurnal Variations**
- **Reduced Instrumentation Requirements**
- **25% Weight Reduction**
- **User Friendly Keypad Operation**
- **Universal Computer Interface**
- **Comprehensive Software Packages**

Specifications

Dynamic Range	18,000 to 110,000 gammas. Roll-over display feature suppresses first significant digit upon exceeding 100,000 gammas.
Tuning Method	Tuning value is calculated accurately utilizing a specially developed tuning algorithm
Automatic Fine Tuning	± 15% relative to ambient field strength of last stored value
Display Resolution	0.1 gamma
Processing Sensitivity	± 0.02 gamma
Statistical Error Resolution	0.01 gamma
Absolute Accuracy	± 1 gamma at 50,000 gammas at 23°C ± 2 gamma over total temperature range
Standard Memory Capacity	
Total Field or Gradient	1,200 data blocks or sets of readings
Tie-Line Points	100 data blocks or sets of readings
Base Station	5,000 data blocks or sets of readings
Display	Custom-designed, ruggedized liquid crystal display with an operating temperature range from -40°C to +55°C. The display contains six numeric digits, decimal point, battery status monitor, signal decay rate and signal amplitude monitor and function descriptors.
RS 232 Serial I/O Interface	2400 baud, 8 data bits, 2 stop bits, no parity
Gradient Tolerance	6,000 gammas per meter (field proven)
Test Mode	A. Diagnostic testing (data and programmable memory) B. Self Test (hardware)
Sensor	Optimized miniature design. Magnetic cleanliness is consistent with the specified absolute accuracy.
Gradient Sensors	0.5 meter sensor separation (standard), normalized to gammas/meter. Optional 1.0 meter sensor separation available. Horizontal sensors optional.
Sensor Cable	Remains flexible in temperature range specified, includes strain-relief connector
Cycling Time (Base Station Model)	Programmable from 5 seconds up to 60 minutes in 1 second increments
Operating Environmental Range	-40°C to +55°C; 0-100% relative humidity; weatherproof
Power Supply	Non-magnetic rechargeable sealed lead-acid battery cartridge or belt; rechargeable NiCad or Disposable battery cartridge or belt; or 12V DC power source option for base station operation.
Battery Cartridge/Belt Life	2,000 to 5,000 readings, for sealed lead acid power supply, depending upon ambient temperature and rate of readings
Weights and Dimensions	
Instrument Console Only	2.8 kg, 238 x 150 x 250mm
NiCad or Alkaline Battery Cartridge	1.2 kg, 235 x 105 x 90mm
NiCad or Alkaline Battery Belt	1.2 kg, 540 x 100 x 40mm
Lead-Acid Battery Cartridge	1.8 kg, 235 x 105 x 90mm
Lead-Acid Battery Belt	1.8 kg, 540 x 100 x 40mm
Sensor	1.2 kg, 56mm diameter x 200mm
Gradient Sensor (0.5m separation-standard)	2.1 kg, 56mm diameter x 790mm
Gradient Sensor (1.0m separation-optional)	2.2 kg, 56mm diameter x 1300mm
Standard System Complement	Instrument console; sensor; 3-meter cable, aluminum sectional sensor staff, power supply, harness assembly, operations manual.
Base Station Option	Standard system plus 30 meter cable
Gradiometer Option	Standard system plus 0.5 meter sensor

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5151 Ward Road
Wheat Ridge, Colorado
U.S.A. 80033
(303) 422 9112

Printed in Canada

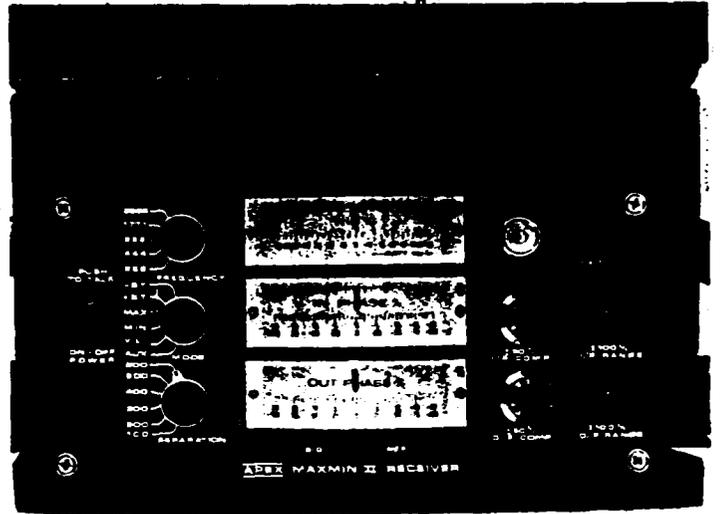
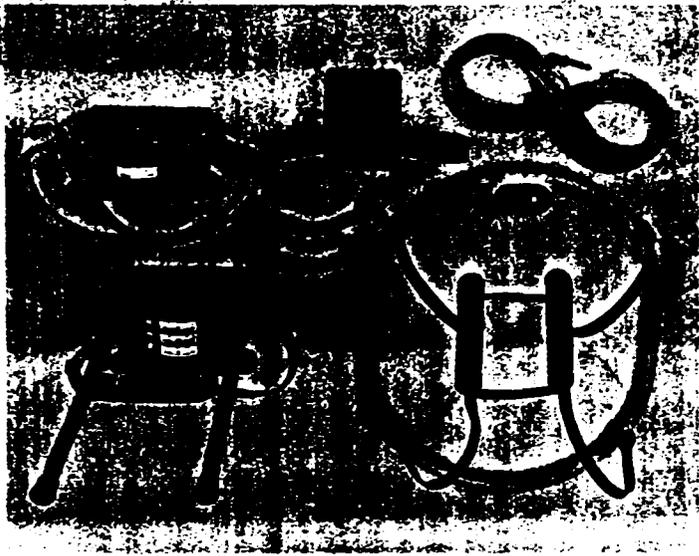
APPENDIX B

APEX

MAXMIN II PORTABLE EM

- Five frequencies: 222, 444, 888, 1777 and 3555 Hz.
- Maximum coupled (horizontal-loop) operation with reference cable.
- Minimum coupled operation with reference cable.
- Vertical-loop operation without reference cable.
- Coil separations: 25, 50, 100, 150, 200 and 250 m (with cable) or 100, 200, 300, 400, 600 and 800 ft.
- Reliable data from depths of up to 180m (600 ft).
- Built-in voice communication circuitry with cable.
- Tilt meters to control coil orientation.





SPECIFICATIONS :

Frequencies: 222, 444, 888, 1777 and 3555 Hz.

Modes of Operation: **MAX:** Transmitter coil plane and receiver coil plane horizontal (Max-coupled; Horizontal-loop mode). Used with refer. cable.

MIN: Transmitter coil plane horizontal and receiver coil plane vertical (Min-coupled mode). Used with reference cable.

V.L.: Transmitter coil plane vertical and receiver coil plane horizontal (Vertical-loop mode). Used without reference cable, in parallel lines.

Coil Separations: 25, 50, 100, 150, 200 & 250m (MM) or 100, 200, 300, 400, 600 and 800 ft. (MM I F). Coil separations in V.L. mode not restricted to fixed values.

Parameters Read: - In-Phase and Quadrature components of the secondary field in MAX and MIN modes.
- Tilt-angle of the total field in V.L. mode.

Readouts: - Automatic, direct, readout on 90mm (3.5") edgewise meters in MAX and MIN modes. No nulling or compensation necessary.
- Tilt angle and null in 90mm edgewise meters in V.L. mode.

Scale Ranges: In-Phase: $\pm 20\%$, $\pm 100\%$ by push-button switch.
Quadrature: $\pm 20\%$, $\pm 100\%$ by push-button switch.
Tilt: $\pm 75\%$ slope.
Null (V.L.): Sensitivity adjustable by separation switch.

Readability: In-Phase and Quadrature: 0.5%
Tilt: 1%

Repeatability: $\pm 0.5\%$ to $\pm 1\%$ normally, depending on conditions, frequencies and coil separation used.

Transmitter Output: - 222Hz : 175 Atm²
- 444Hz : 160 Atm²
- 888Hz : 100 Atm²
- 1777Hz : 60 Atm²
- 3555Hz : 30 Atm²

Receiver Batteries: 9V trans. radio type batteries (4). Life: approx. 35hrs. continuous duty (alkaline, U.S. Ah), less in cold weather.

Transmitter Batteries: 12V 7.5Ah Gel-Cell rechargeable batteries (2 x 6V in series).

Reference Cable: Light weight 2-conductor teflon cable for minimum friction. Unshielded. All reference cables optional at extra cost. Please specify.

Voice Link: Built-in intercom system for voice communication between receiver and transmitter operators in MAX and MIN modes, via reference cable.

Indicator Lights: Built-in signal and reference warning lights to indicate erroneous readings.

Temperature Range: -40°C to +60°C (-40°F to +140°F).

Receiver Weight: 6kg (13 lbs.)

Transmitter Weight: 13kg (29 lbs.)

Shipping Weight: Typically 60kg (135 lbs.), depending on quantities of reference cable and batteries included. Shipped in two field/shipping cases.

Specifications subject to change without notification.

APEX PARAMETRICS LIMITED
200 STEELCASE RD. E., MARKHAM, ONT., CANADA, L3R 1G2

Phone: (416) 495-1612

Cables: APEXPARA TORONTO

Telex: 06-966773 NORDVIK TOR

W4460-0255
GAD
9-15499

Personal Information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

- Instructions:
- Please type or print and submit
 - Refer to the Mining Act and R Recorder.
 - A separate copy of this form r
 - Technical reports and maps n
 - A sketch, showing the claims



42B09SW0003 2.15499 MONTCALM

900

Recorded Holder(s) Falconbridge Limited		Client No. 130679
Address Suite 1200, 95 Wellington Street West, Toronto, ON, M5J 2V4		Telephone No. 1(416)956-5700
Mining Division Porcupine	Township/Area Belford	M or G Plan No. M 657
Dates Work Performed From: April 29, 1994		To: May 6, 1994

Work Performed (Check One Work Group Only)

Work Group	Type
Geotechnical Survey	Grid Setting and Geophysics
Physical Work, Including Drilling	
Rehabilitation	
Other Authorized Work	
Assays	
Assignment from Reserve	

RECEIVED
JUL 12 1994
MINING LANDS BRANCH

RECORDED
JUL - 6 1994
Receipt

Total Assessment Work Claimed on the Attached Statement of Costs \$ 30,992

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
Rayan Exploration Ltd.	c/o Mr. Ray Meikle, 676 Murray Street, Timmins, ON, P4N 7E2
Skytech Aviation Limited	R.R. #3, Orillia, ON, L3V 6H3

(attach a schedule if necessary)

Certification of Beneficial Interest: See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.

Date: June 14, 1994
Recorded Holder or Agent (Signature): [Signature]

Certification of Work Report

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

Name and Address of Person Certifying:
D.J. Duff, c/o Falconbridge Limited, P.O. Box 1140, 571 Moneta Avenue, Timmins, ON, P4N 7H9

Telephone No.: 1(705)267-1188
Date: June 14, 1994
Certified By (Signature): [Signature]

For Office Use Only

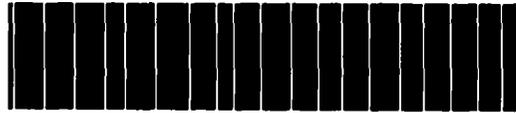
Total Value Cr. Recorded \$ 30,992.00	Date Recorded July 6th/94	Mining Recorder [Signature]
	Deemed Approval Date Oct 4th/94	Date Approved
	Date Notice for Amendments Sent	

RECEIVED
JUL 6 1994
@ 2:30pm SLD
PORCUPINE MINING DIVISION

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 8A5, telephone 705: 670-7284.

2 15400

- Instructions:
- Please type or print and submit
 - Refer to the Mining Act and R Recorder.
 - A separate copy of this form r
 - Technical reports and maps r
 - A sketch, showing the claims



42B09NE0019 2.15499 MONTCALM

900

Recorded Holder(s) Falconbridge Limited		Client No. 130679
Address Suite 1200, 95 Wellington Street West, Toronto, ON, M5J 2V4		Telephone No. 1(416)956-5700
Mining Division Porcupine	Township/Area Belford	M or G S n No. M 657
Date Work Performed	From: April 29, 1994	To: May 6, 1994

Work Performed (Check One Work Group Only)

Work Group	Type
Geotechnical Survey	Grid Setting and Geophysics
Physical Work, Including Drilling	
Rehabilitation	
Other Authorized Work	
Assays	
Assignment from Reserve	

RECEIVED
JUL 12 1994
MINING LANDS BRANCH

RECORDED
JUL - 6 1994
Receipt

Total Assessment Work Claimed on the Attached Statement of Costs \$ 30,992

Note: The Minister may reject or assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
Rayan Exploration Ltd.	c/o Mr. Ray Meikle, 676 Murray Street, Timmins, ON, P4N 7E2
Skytech Aviation Limited	R.R. #3, Orillia, ON, L3V 6H3

(attach a schedule if necessary)

Certification of Beneficial Interests: See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date June 14, 1994	Recorded Holder or Agent (Signature) <i>[Signature]</i>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------	------------------------------------------------------------

Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true		
Name and Address of Person Certifying D.J. Duff, c/o Falconbridge Limited, P.O. Box 1140, 571 Moneta Avenue, Timmins, ON, P4N 7H2		
Telephone No. 1(705)267-1188	Date June 14, 1994	Certified By (Signature) <i>[Signature]</i>

For Office Use Only

Total Value Cr. Recorded \$ 30,992	Date Recorded July 6th 1994	Mining Recorder <i>[Signature]</i>
	Date Approved Oct 4th 1994	Date Approved
	Date Notice for Amendments Sent	

RECEIVED
JUL 6 1994
@ 2:30pm SLD
PORCUPINE MINING DIVISION

Work Report Number by Applying Reserve	Claim Number (see Note 2)	Number of Claim Units
	P-1189253	16
	P-1189252	16
Total Number of Claims		2

Value of Assessment Work Done on the Claim	Value Applied to this Claim	
\$15,496	0	
\$15,496	0	
Total Value Work Done		\$30,992
Total Value Work Applied		\$15,496

Value Assigned from the Claim	Reserve Work to be Claimed at a Future Date	
---	\$15,496	
---	\$15,496	
Total Assigned From		---
Total Reserve		\$30,992

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to prioritize the deletion of credits. Please mark (✓) one of the following:

- Credits are to be cut back starting with the claim listed last, working backwards.
- Credits are to be cut back equally over all claims contained in this report of work.
- Credits are to be cut back as prioritized on the attached appendix.

In the event that you have not specified your choice of priority, option one will be implemented.

Note 1: Examples of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respect to the mining claims.

Note 2: If work has been performed on patented or leased land, please complete the following:

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.	Signature <i>Lawrence J. ...</i>	Date 07/26/04
---------------------------------------------------------------------------------------------------------------------------------	-------------------------------------	------------------



Statement of Costs
for Assessment Credit

État des coûts aux fins
du crédit d'évaluation

Mining Act/Loi sur les mines

Transaction No./N° de transaction
W440.0055

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5 telephone (705) 670-7284.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adressez toute question sur la collecte de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4^e étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7284.

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre	---	---
	Field Supervision Supervision sur le terrain	---	---
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert- conseil	Type Linecutting/ Geophysics	\$62,467	---
			\$30,992
Supplies Used Fournitures utilisées	Type		---

Equipment Renta: Location de matériel	Type		---

Total Direct Costs Total des coûts directs			---

2. Indirect Costs/Coûts indirects

** Note: When claiming Rehabilitation work indirect costs are not allowable as assessment work.
Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type		
Food and Lodging Nourriture et hébergement	Receipt		
Mobilization Démobilization Mobilisation et démobilisation			
Sub Total of Indirect Costs Total partiel des coûts indirects			---
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)			---
Total Value of Assessment Credit (Total of Direct and Allowable indirect costs)			\$30,992
Value total du crédit d'évaluation (Total des coûts directs et indirects admissibles)			

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note: Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

- Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
- Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
	x 0.50 =

Remises pour dépôt

- Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
- Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Évaluation totale demandée
	x 0,50 =

Certification Verifying Statement of Costs

I hereby certify that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as D.J. Duff (Senior Project Geologist) I am authorized (Recorded Holder, Agent, Position in Company)

to make this certification

Attestation de l'état des coûts

J'atteste par la présente que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de _____ je suis autorisé (titulaire enregistré, représentant, poste occupé dans la compagnie)

à faire cette attestation.

Signature Damon Duff Date 27/06/94

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 870-7284.

2,15499

- Instructions:
- Please type or print and submit in duplicate.
 - Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder.
 - A separate copy of this form must be completed for each Work Group.
 - Technical reports and maps must accompany this form in duplicate.
 - A sketch, showing the claims the work is assigned to, must accompany this form.

Recorded Holder(s) Falconbridge Limited		Claim No. 130679
Address Suite 1200, 95 Wellington Street West, Toronto, ON, M5J 2V4		Telephone No. 1(416)956-5700
Mining Division Porcupine	Township/Area Montcalm/Belford	M or G Plan No. M 657/M 872
Date Work Performed From: January 1994	To: April 1994	

Work Performed (Check One Work Group Only)

Work Group	Type
Geotechnical Survey	Grid Cutting and Geophysics
Physical Work, Including Drilling	
Rehabilitation	
Other Authorized Work	
Assays	
Assignment from Reserve	

RECORDED

JUL - 6 1994

Receipt _____

Total Assessment Work Claimed on the Attached Statement of Costs \$ 31,183

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
Ryan Exploration Ltd.	c/o Mr. Ray Meikle 676 Murray Street, Timmins, ON, P4N 7B2

(attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.

Date: June 14, 1994
Recorded Holder or Agent Signature: *[Signature]*

Certification of Work Report

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

Name and Address of Person Certifying:
D.C. Duff, c/o Falconbridge Limited, P.O. Box 1140, Timmins, ON, P4N 7H9

Telephone No.: 1(705)267-1188
Date: June 14, 1994
Certified By (Signature): *[Signature]*

For Office Use Only

\$ 31,183.	Total Value Cr. Recorded	Date Recorded JULY 6 1994	Mining Recorder <i>[Signature]</i>
		Date Approved Oct. 4/1994	Date Approved
		Date Notice for Amendments Sent	

RECEIVED

JUL 6 1994

2230pm Sisk

PORCUPINE MINING DIVISION

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 150 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 870-7284.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute question sur la collecte de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 150, rue Cedar, 4^e étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 870-7284.

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre	---	
	Field Supervision Supervision sur le terrain	---	
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert-conseil	Type Grid Cutting &		
	Geophysics	28,992	
Supplies Used Fournitures utilisées	Type		
Equipment Rental Location de matériel	Type		
Total Direct Costs Total des coûts directs			28,992

2. Indirect Costs/Coûts indirects

Note: When claiming Rehabilitation work Indirect costs are not allowable as assessment work. Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type Helicopter	2,192	2,192
Sub Total of Indirect Costs Total partiel des coûts indirects			2,192
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)			
Total Value of Assessment Credit (Total of Direct and Allowable Indirect Costs) Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)			31,183

RECORDED
JUL - 6 1994
Receipt

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note: Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

- 1. Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
- 2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
x 0.50 =	

Remises pour dépôt

- 1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée de travail d'évaluation.
- 2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Évaluation totale demandée
x 0,50 =	

Certification Verifying Statement of Costs

I hereby certify that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.
 That as D.J. Duff (Senior Project Geologist) I am authorized (Recorded Holder, Agent, Position in Company)
 to make this certification

Attestation de l'état des coûts

J'atteste par la présente que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.
 Et qu'à titre de _____, je suis autorisé (titulaire enregistré, représentant, poste occupé dans la compagnie)
 à faire cette attestation.

Signature: D.J. Duff Date: 06/07/04

Note: Dans cette formule, lorsqu'il désigne des personnes, le masculin est utilisé au sens neutre.



Ontario

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Geoscience Approvals Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (705) 670-5853
Fax: (705) 670-5863

September 16, 1994

Our File: 2.15499
Transaction #: W9460.00157
W9460.00155

Mining Recorder
Ministry of Northern Development
and Mines
60 Wilson avenue
1st Floor
Timmins, Ontario
P4N 2S7

Dear Gary White:

**RE: APPROVAL OF ASSESSMENT WORK ON MINING CLAIMS 1189250-1189253 IN
BELFORD AND MONTCALM TOWNSHIPS.**

The assessment credits for Physical Work and Geophysical Surveys,
Sections 10 and 14 of the Mining Act Regulations, as listed on the
original Report of Work, have been approved as of September 16, 1994.

Please indicate this approval on the claim record sheets.

If you have any questions concerning this submission please contact
Michael Charette at (705) 670-5856.

ORIGINAL SIGNED BY:

Ron C. Gashinski
Senior Manager, Mining Lands Section
Mining and Land Management Branch
Mines and Minerals Division

MC/jl
Enclosures:

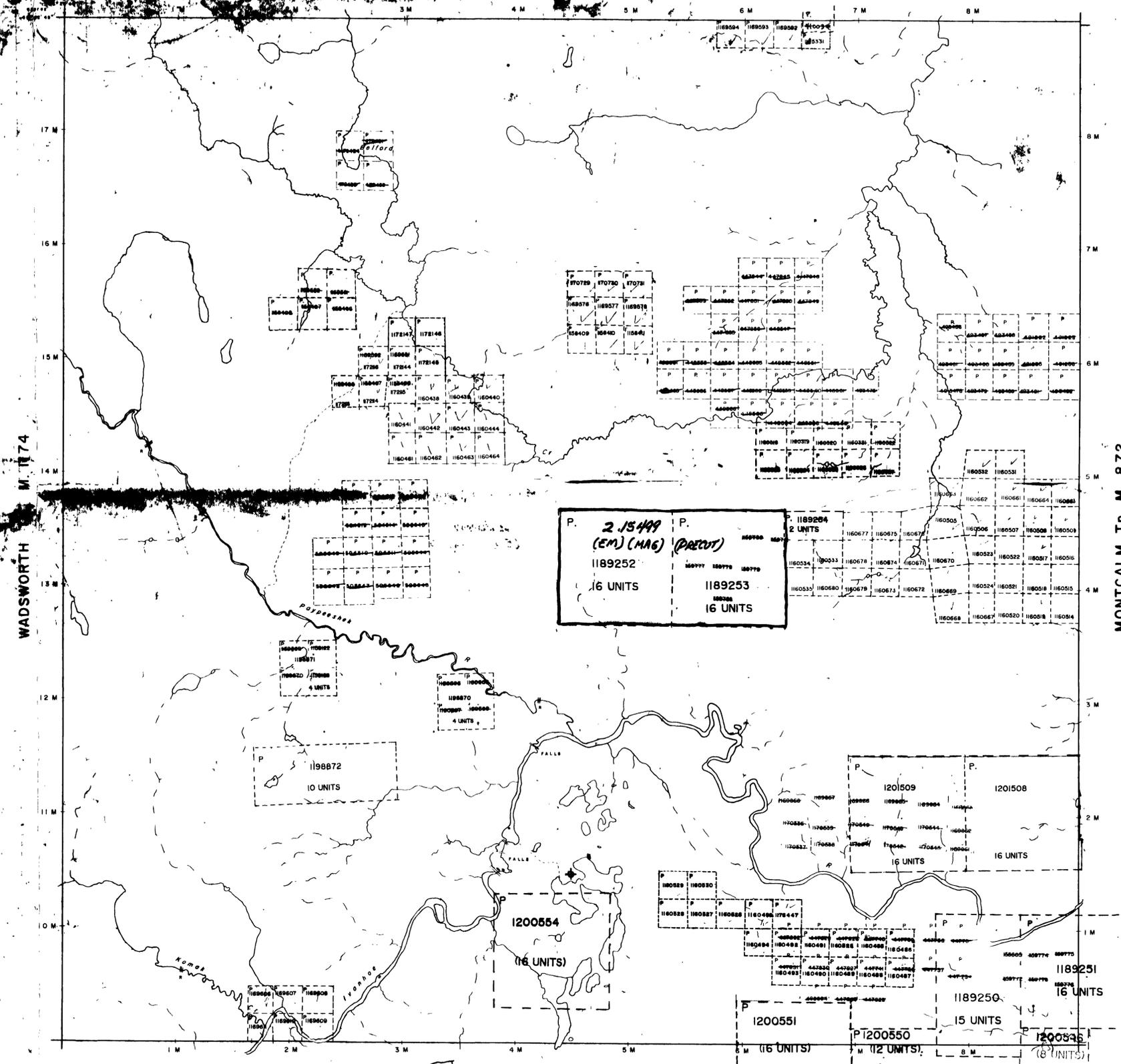
cc: Assessment Files Office
Sudbury, Ontario

Resident Geologist
Timmins Ontario

NOTES

WATSON T. M. 1129

AND GRAV



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
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES

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 | ◔ |
| CROWN LAND SALE | ◕ |
| ORDER-IN-COUNCIL | ◖ |
| RESERVATION | ◗ |
| CANCELLED | ◘ |
| SAND & GRAVEL | ◙ |
| L. U. P. | ◚ |
| REMOTE TOURIST CAMPS | ◛ |

Received Jan 7/80

SCALE: 1 INCH = 40 CHAINS

FEET 0 100 200 300 400 500 600 700 800 900

METRES 0 100 200 300 400 500 600 700 800 900

ACRES	HECTARES
40	16

TOWNSHIP

BELFORD

DISTRICT

COCHRANE

MINING DIVISION

PORCUPINE

Ministry of Natural Resources

Ontario Surveys and Mapping Branch

Date 12 74 Plan No.

Whitney Block Queen's Park Toronto

M. 657

BELFORD ID

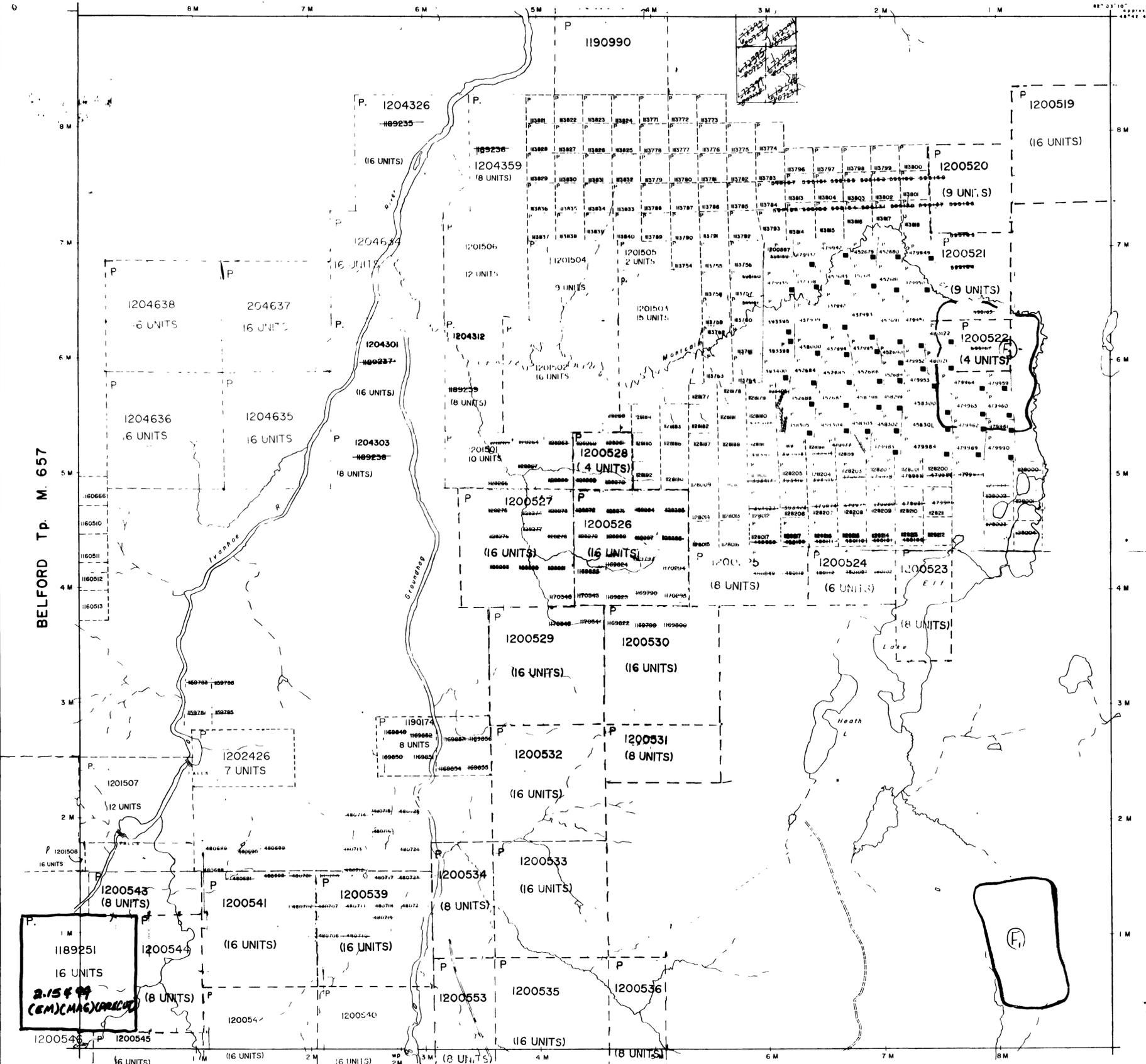
12



400 surface rights reservation along the shores of all lakes and rivers

POULETT Tp. M.1063

F1 - SUBJECT TO FORESTRY ACTIVITY IN 1993-94 GORDON COBENS F.M.A.



1189251
16 UNITS
2-154-99
(EM)(MAG)(ARLUC)

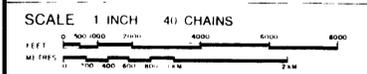
THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

LEGEND

- HIGHWAY AND ROUTE
- OTHER ROADS
- TRAILS
- SURVEYED LINES
- TOWNSHIPS, BASE LINES, ETC.
- LOTS, MINING CLAIMS, PARCELS, ETC.
- UNCLASSED LINES
- LINE
- PAIRED BOUNDARY
- MINING CLAIMS, ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- ANNUAL PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBSIDION
- ORIGINAL SHORELINE
- MARSH OR MUSKETS
- MINES

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	◔
CROWN LAND SALE	CS
ORDER-IN-COUNCIL	OC
RESERVATION	⊙
CANCELLED	⊖
SAND & GRAVEL	⊗



ACRES 40 HECTARES 16
Received Nov. 5/02

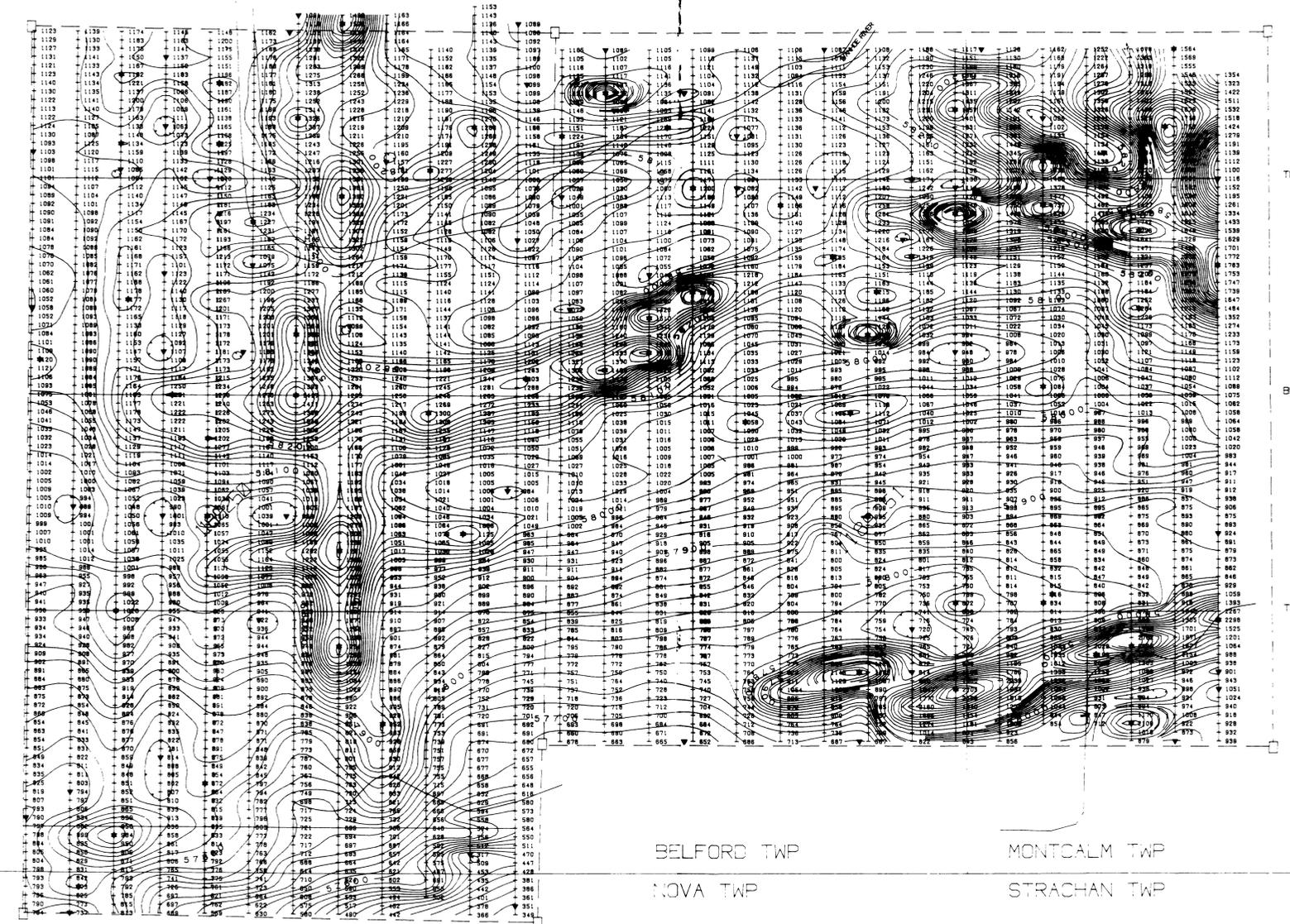
TOWNSHIP
MONTCALM
DISTRICT
COCHRANE
MINING DIVISION
PORCUPINE

Ministry of Natural Resources
Ontario Surveys and Mapping Branch
Date 12 74 Plan No
Whitney Block
Queen's Park Toronto **M.872**



500 EAST 600 EAST 700 EAST 800 EAST 900 EAST 1000 EAST 1100 EAST 1200 EAST 1300 EAST 1400 EAST 1500 EAST 1600 EAST 1700 EAST 1800 EAST 1900 EAST 2000 EAST 2100 EAST 2200 EAST 2300 EAST 2400 EAST

2400 NORTH
2300 NORTH
2200 NORTH
2100 NORTH
2000 NORTH
1900 NORTH
1800 NORTH
1700 NORTH
1600 NORTH
1500 NORTH
1400 NORTH
1300 NORTH
1200 NORTH
1100 NORTH
1000 NORTH
900 NORTH
800 NORTH
700 NORTH
600 NORTH
500 NORTH
400 NORTH
300 NORTH



LEGEND

INSTRUMENT: EDA OMNI PROTON PRECESSION MAGNETOMETER
 PARAMETERS MEASURED: EARTH'S TOTAL MAGNETIC FIELD (NANO-TESLAS)
 READING INTERVAL: 20M
 CONTOUR INTERVAL: 20 NANO TESLAS
 DIURNAL CORRECTION METHOD: RECORDING OMNI BASE STATION
 DATUM SUBTRACTED FROM ALL PLOTTED READINGS: 57000 nT

PEAK MAGNETIC HIGH
 PEAK MAGNETIC LOW

TOPO LEGEND

- Claim Line
- Claim Post Located
- Claim Post Assumed
- Claim Line
- == Gravel Road
- == Highway
- Hydro Line

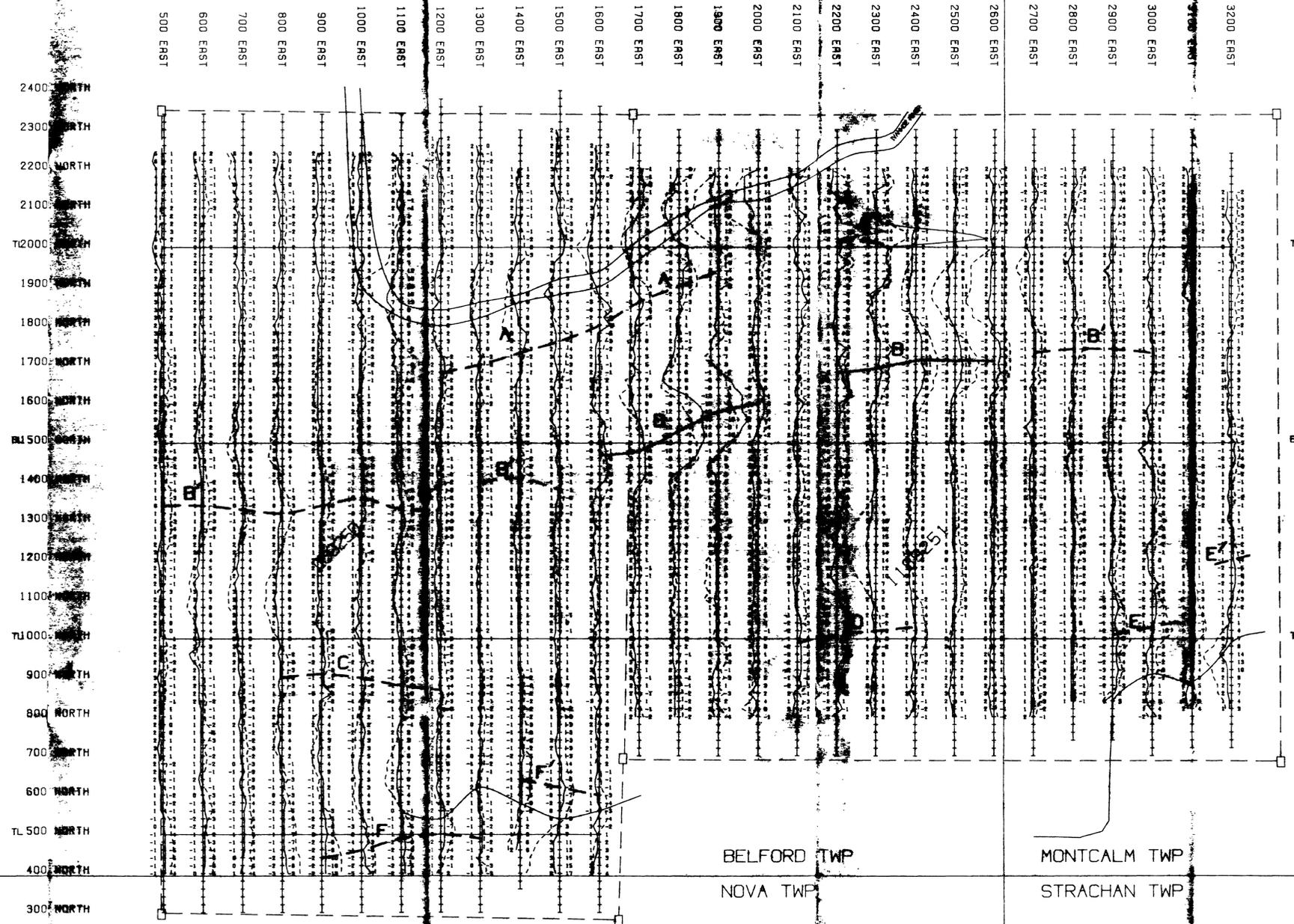
2.154.99



Client: FALCONBRIDGE LIMITED
 Property: S/E BELFORD TOWNSHIP
 Title: TOTAL FIELD MAGNETOMETER SURVEY

Processed: RJM	Checked: RJM	<p>RAYAN EXPLORATION LTD CONTRACTORS LTD TIMING, SURVEY</p> <p>1785-268-4866</p>
Date: APRIL 1994	Township: BELFORD	
Province: ONT	N.T.S 428 N.E	
Scale: 1:5,000	Drawing: S/E MAG	





HELM LEGEND
 INSTRUMENT: APEX - RAIRIN II
 WIRE: BOWMAN COUPLED CO-PLANAR
 READING INTERVAL: 20"
 CLOSURE SEPARATION: 200"
 FREQUENCY: 444 Hz
 PROFILE SCALE: 1" = 100'

CONDUCTORS

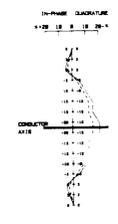
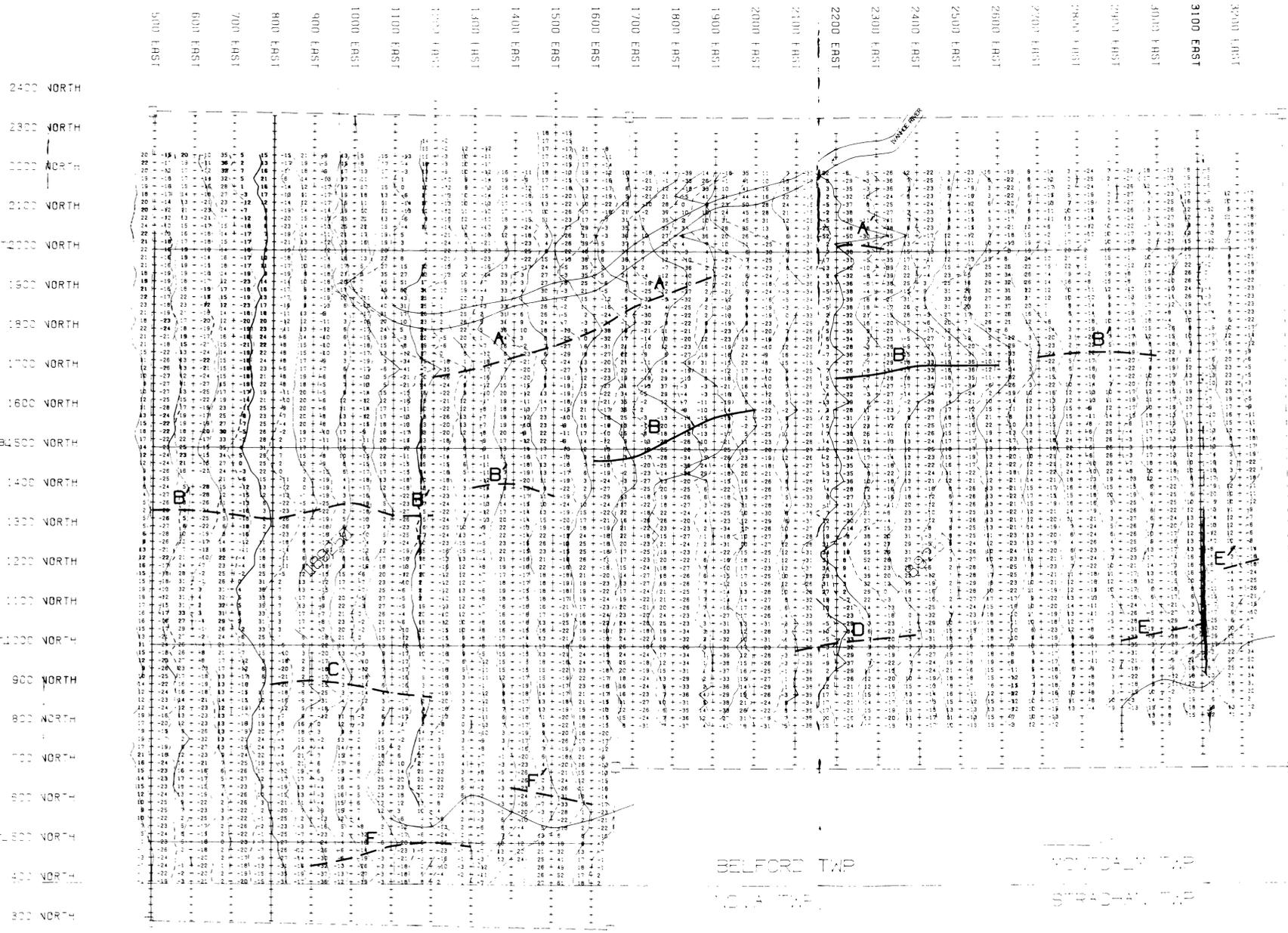
TOPO LEGEND

- Close Post Located
 - Close Post Assumed
 - - - - - Close Line
 - == Gravel Road
 - ==== Highway
 - Hydro Line
 - X HILL
- 2.15499

Client: FALCONBRIDGE LIMITED
 S/E BELFORD TOWNSHIP
 HORIZONTAL LOOP
 SURVEY 444 Hz

DATE:	BY:	CHECKED:	DATE:
1999





KEY LEGEND
 INSTRUMENT: APBY - MAXMIN 11
 WIDE MAXIMUM COUPLED COPLANAR
 READING INTERVAL: 20 m
 COIL SEPARATION: 200 m
 FREQUENCY: 1777 Hz
 PROFILE SCALE: 1cm = 20m

CONDUCTORS
 GOOD: Solid line
 MED: Dashed line
 POOR: Dotted line

TOPO LEGEND

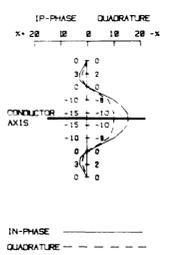
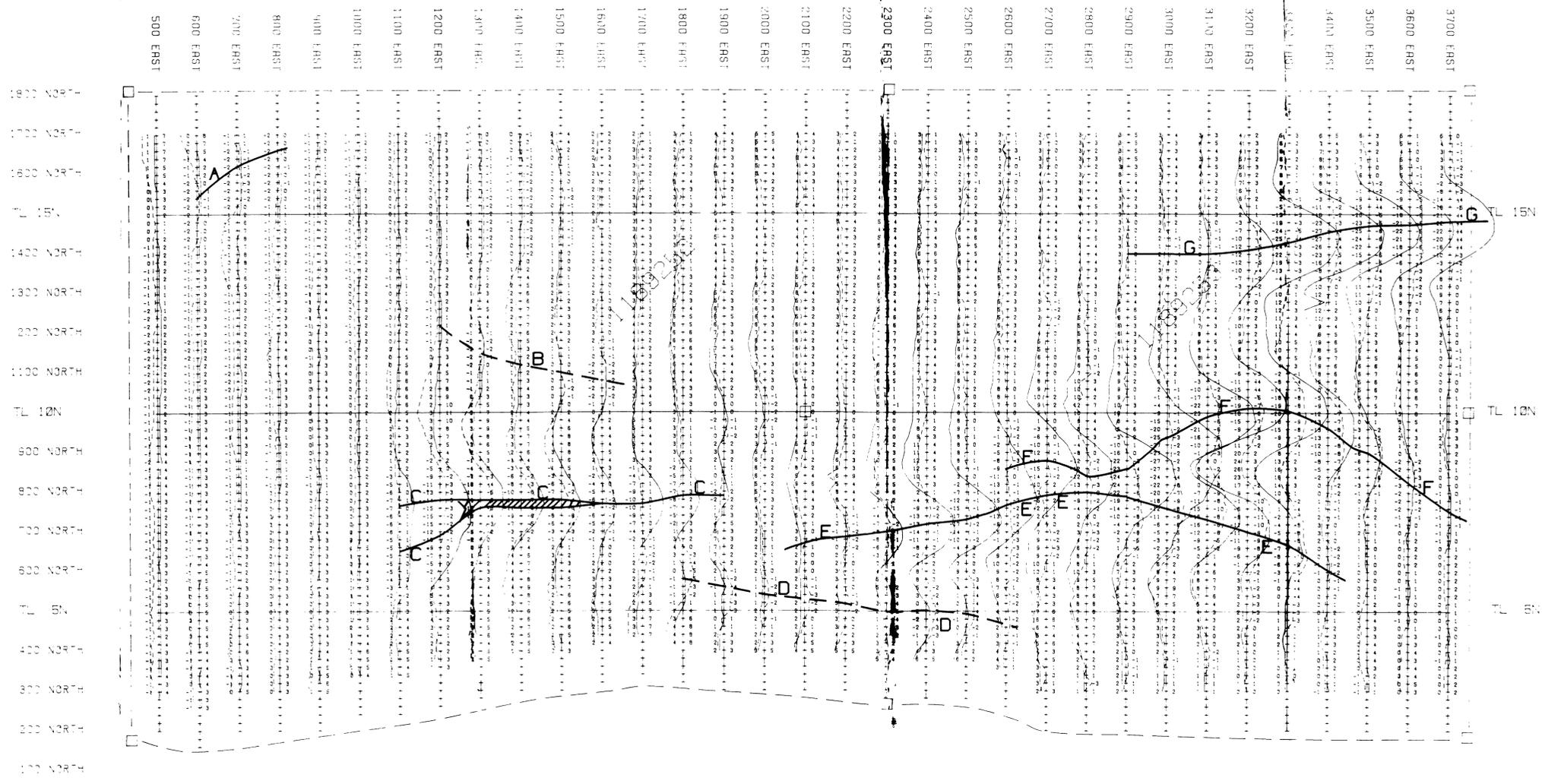
- Clear Post Located
- Clear Post Assumed
- Clear Line
- Gravel Road
- Highway
- Hydro Line

2.15499

Client: FALCONBRIDGE LIMITED
 Property: S. E. BELFORD TOWNSHIP
 Title: HORIZONTAL LOOP SURVEY 1777 Hz

Processed	RJM	Checked	RJM
Date	APRIL 1994	Township	BELFORD
Province	ONT	N.T.S.	428 N/E
Scale	1:5,000	Drawing	S/E 1777





FIELD LEGEND
 INSTRUMENT APEX - MARKIN II
 MODE MAXIMUM COUPLED, CO-PLANAR
 READING INTERVAL 20 m
 COIL SEPARATION 200 m
 FREQUENCY 444 Hz
 PROFILE SCALE 1cm = 10m

CONDUCTORS
 3000 ———
 1000 - - - -
 4000 ······

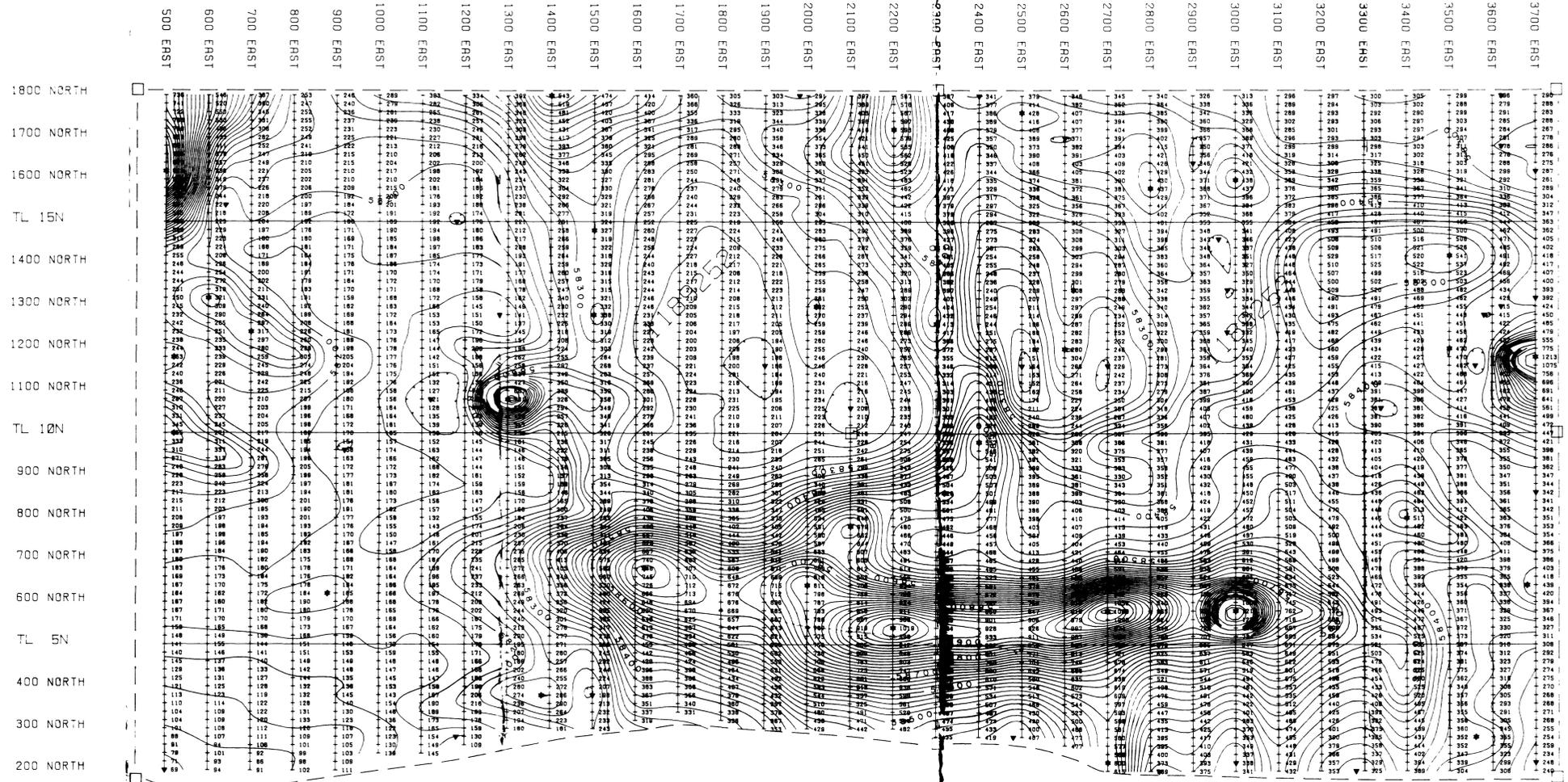
TOPIC LEGEND

- Claim Line
- Claim Post Located
- Claim Post Assumed
- Claim Line
- == Gravel Road
- == Highway
- Hydro Line

X HILL
 2.15499

Client FALCONBRIDGE LIMITED	
Property CENTRAL BELFORD TOWNSHIP	
Title HORIZONTAL LOOP SURVEY 444 Hz	
Processed RJM	Checked RJM
Date APRIL 1994	Township BELFORD
Province ONT	N.T.S. 428 N/E
Scale 1:5,000	Drawing 03444





LEGEND

INSTRUMENT: EDA OMNI PROTON PRECESSION MAGNETOMETER
 PARAMETERS MEASURED: EARTH'S TOTAL MAGNETIC FIELD (NANO-TESLAS)
 READING INTERVAL: 200
 CONTOUR INTERVAL: 20 NANO TESLAS
 DIURNAL CORRECTION METHOD: RECORDING OMNI BASE STATION
 DATUM SUBTRACTED FROM ALL PLOTTED READINGS: 500000

PEAK MAGNETIC HIGH
 PEAK MAGNETIC LOW

TOPO LEGEND

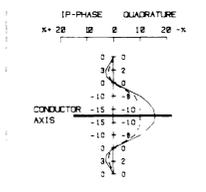
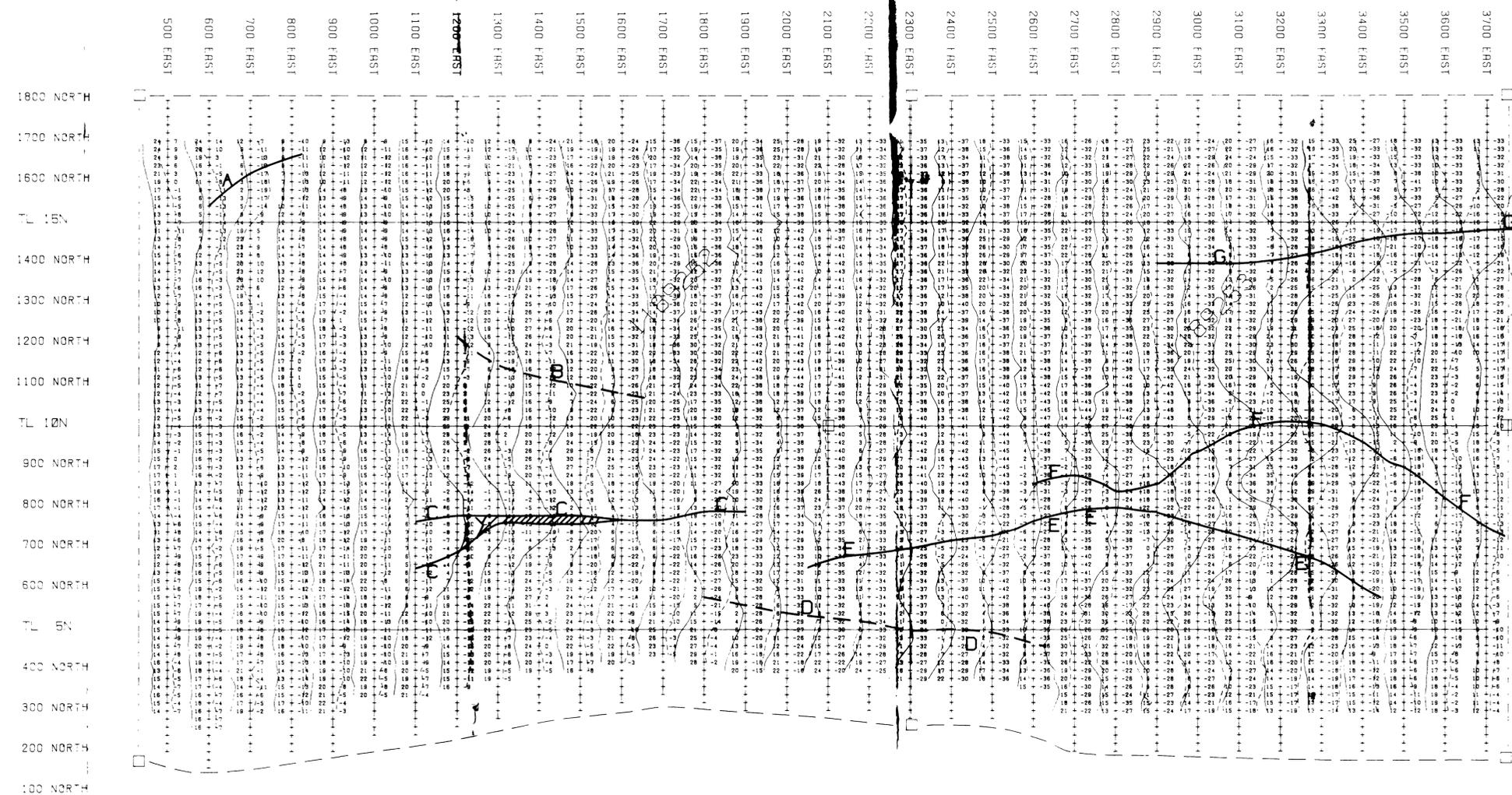
- Claim Line
- Claim Post Located
- Claim Post Assumed
- Claim Line
- Gravel Road
- Highway
- Hydro Line



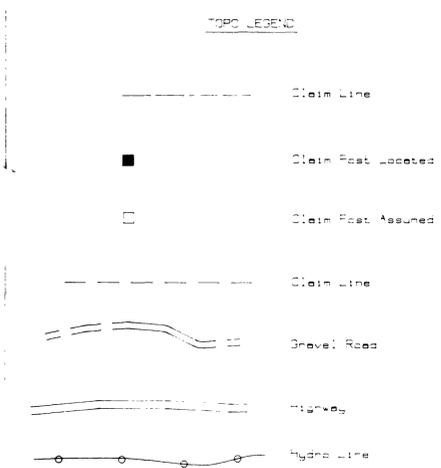
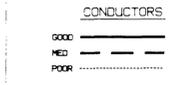
2.15499

Client: FALCONBRIDGE LIMITED	
Property: CENTRAL BELFORD TOWNSHIP	
Title: TOTAL FIELD MAGNETOMETER SURVEY	
Processed: RJM	Checked: RJM
Date: APRIL 1994	Township: BELFORD
Province: ONT	N.T.S. 48 N.E.
Scale: 1:5,000	Drawing: CGMAG





ITEM LEGEND
 INSTRUMENT APEN - MAXMIN 11
 MODE MAXIMUM COUPLED COPLANAR
 READING INTERVAL 22 m
 COLL SEPARATION 200 m
 FREQUENCY 444 Hz
 PROFILE SCALE 1cm = 12m



2.15499



Client FALCONBRI DGE LIMITED	
Property CENTRAL BUSINESS DISTRICT	
Title HORIZONTAL LOOP SURVEY	
Processed gjm	Checked gjm
Date APRIL 1990	Township 56 N 4 W
Province ON	N 5 428 N.E
Scale 1:5,000	Drawing 000000

