INTERPRETATION REPORT

**INTERPRETATION OF AIRBORNE GEOTEM EM DATA
FROM THE KAMKOTIA PROPERTY
TURNBULL-GODFREY TOWNSHIPS
TIMMINS, ONTARIO**

FOR

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BY

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NOVEMBER 9, 1998

G1303

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1. INTRODUCTION

This report details the interpretation of data for a fixed-wing airborne Electromagnetic and Magnetic survey, that was flown in August of 1998, for Prospectors Alliance Corporation over a large block of ground in the Turnbull-Godfrey Townships area, west of Timmins, Ontario. The system used was the Geoterrex Multicoil GEOTEM Digital Time Domain EM system.

The interpretation of this airborne data was commissioned by John Harvey of Prospectors Alliance Corp. on August 12, 1998.

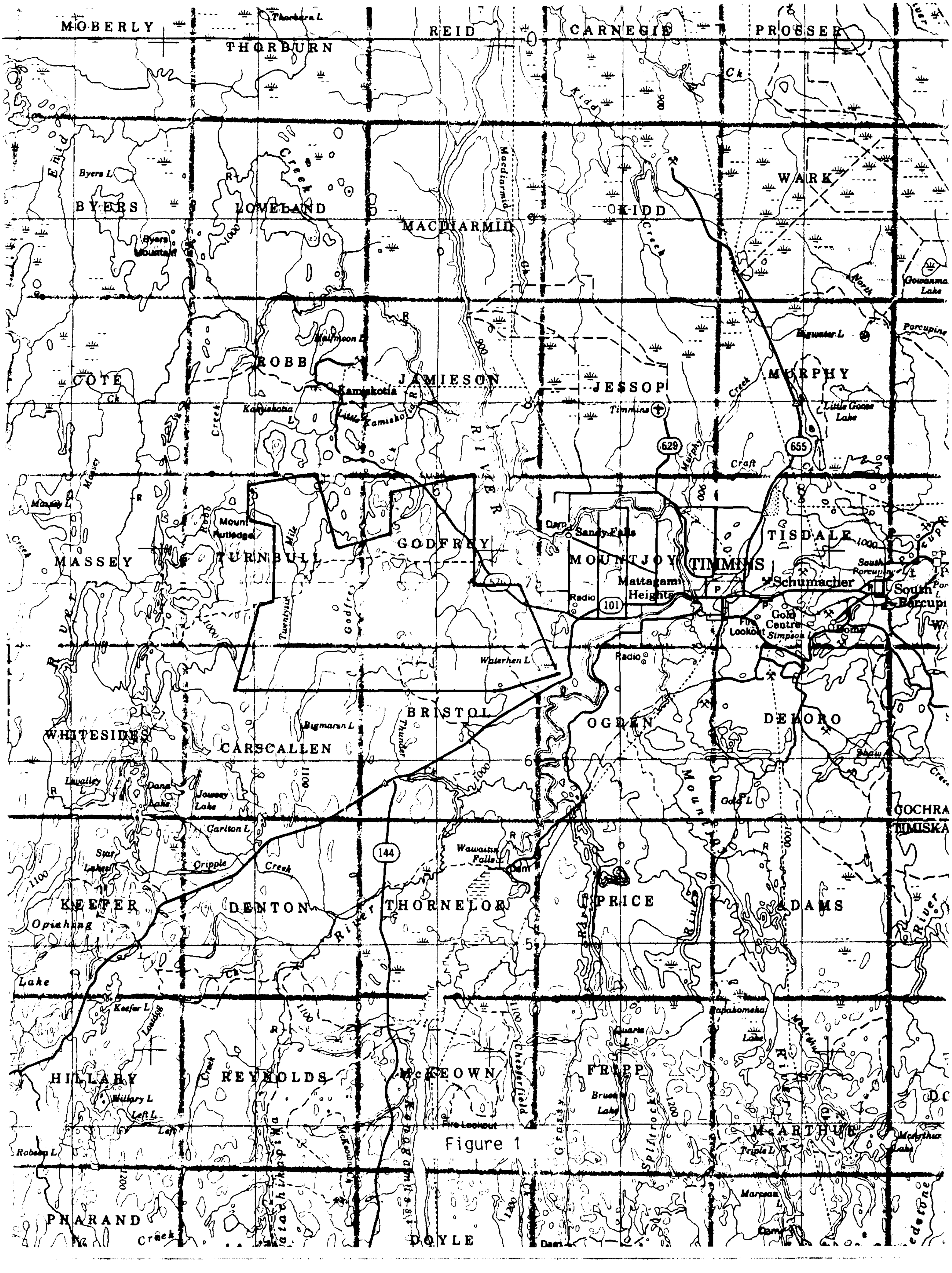
The primary objective of this interpretation is to locate mineralized zones, which can be directly or indirectly related to either Kam-Kotia Mines and/or Jameland Mines Cu-Zn type VMS mineralized targets. Of importance in the area will be volcanogenic massive sulphides within felsic-mafic volcanic and ultramafic (gabbro) stratigraphy. Other types of mineralized targets being pursued in the area will also be sulphide-bearing deformation zones, such as the former Genex Mine and in the Halfmoon Lake area, where potential economic base metal deposits exist.

In reference to the electromagnetic data, the writer will pay particular attention to strong EM responses that may reflect moderate or steeply dipping conductors associated with VMS zones, but also to poorly mineralized zones that may reflect disseminated sulphides with a high sphalerite content. Short, isolated, flanking conductors parallel to graphitic horizons will also be of interest.

A total of 973 line kilometres of the recorded data were interpreted.

2. PROJECT LOCATION

The Survey Area is located approximately 10 kilometres west of Timmins, Ontario (Figure 1). The survey encompasses the east half of Turnbull Township, most of Godfrey Township, the northeastern region of Carscallen Township and the northern quarter of Bristol Township. The area is centered at Latitude 48* 28' and Longitude 81* 35' (NTS 42A 5,6,11,12)(Figure 2).


MOBERLY
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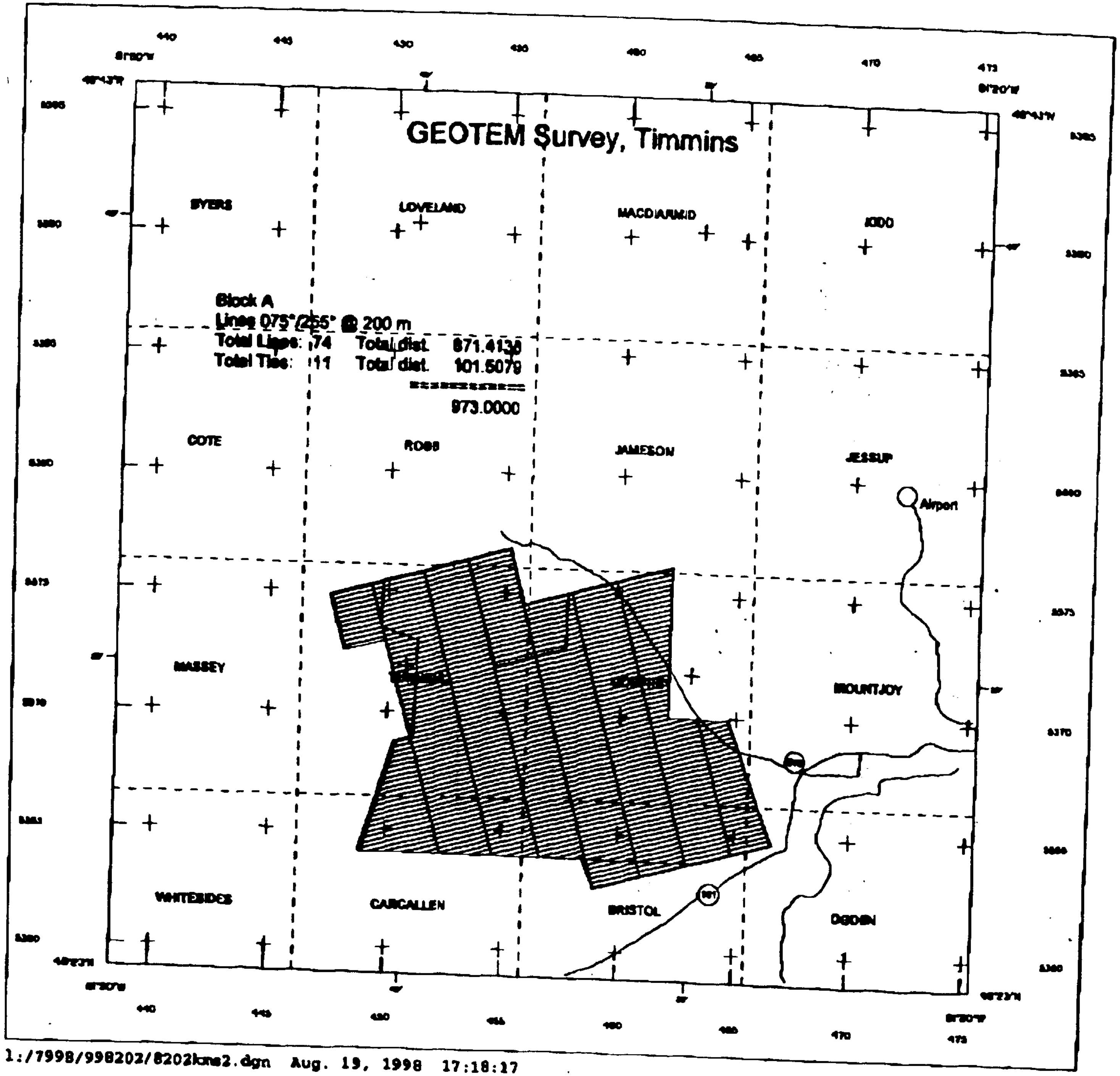
Creek
North
Gowanmac Lake
Halfmoon L
Bigwater L
Porcupine
ROBB
COTE
JAMIESON
JESSOP
MURPHY
Ck
Kamiskotia
Kamiskotia L
Little Kamiskotia R
Timmins
Creek
Little Goose Lake
629
655
Craft
Massey L
Massey
Mount Rutledge
Dam
Sandy Falls
TISDALE
GODFREY
MASSEY
TURNBULL
MOUNTJOY
TIMMINS
Mattagami Heights
Schumacher
South Porcupine
Radio
101
Fire Lookout
Gold Centre
Simpson L
Dome
Twentysix
Godfrey
Waterhen L
Radio
RIVER
BRISTOL
OGDEN
DELORO
WHITESIDES
CARSCALLEN
Bigmarsh L
Thunder
Lavalley L
Dana Lake
Jousey Lake
Carlton L
Shaw
Gold L
COCHRANE
TIMISKAMING
Star Lakes
Cripple
Creek
144
Wawaitin Falls
Dam
KEEFER
DENTON
THORNELOE
PRICE
ADAMS
Opishing
River
Creek
Lake
Keefer L
Papakomeka
Lake
Quartz L
HILLARY
REYNOLDS
McKEOWN
FRIPP
Hillary L
Left L
Chesterfield
Grassy
Bruce Lake
Splitrock
McARTHUR
McArthur Lake
Fire Lookout
Robson L
Triple L
Marcean L
PHARAND
Creek
DOYLE
Dam

Figure 1

Figure 2



1:/7998/998202/8202kms2.dgn Aug. 19, 1998 17:18:17

3. SYSTEM PARAMETERS

3.1 Platform

Aircraft:	CASA C-212 STOL twin engine
Survey speed:	120 knots (approximately 62 m/s)
Flying height:	Nominal terrain clearance of 120 m.

3.2 GEOTEM® system

Base frequency:	90 Hz.
Pulse width:	2040 μs
Pulse delay:	130 μs
Off-time:	3414 μs
Transmitter:	vertical axis loop of 232 m^2, number of turns: 3, current of 700 amperes, dipole moment of 4.87×10^5 Am^2
Receiver:	nominal height above ground of 70 metres. 2 horizontal and vertical axis coils, (x, y and z) final recording rate of 4 samples/sec, for full waveform recording of 20 channels of x and z coils data, gate centers in the off-time (in milliseconds from the end of the pulse):

channel 1:	-1.909	channel 11:	0.608
channel 2:	-1.540	channel 12:	0.738
channel 3:	-0.954	channel 13:	0.890
channel 4:	-0.369	channel 14:	1.064
channel 5:	0.000	channel 15:	1.259
channel 6:	0.152	channel 16:	1.498
channel 7:	0.239	channel 17:	1.780
channel 8:	0.326	channel 18:	2.127
channel 9:	0.413	channel 19:	2.539
channel 10:	0.500	channel 20:	3.060

3.3 Magnetometer

Type: CS-2 cesium vapour, towed-bird installation

Sensitivity: 0.01 nT

Sample rate: continuous

Height above ground: 75 metres

3.4 Navigation equipment

GPS receiver: Sercel NR103 10-channel receiver, linked to the OMNISTAR real-time differential network.

Video camera: Panasonic VHS

3.5 Acquisition system

GEODAS system developed by Geoterrex, DOS 486 based, recording to disk and transferred to the field processing system via removable hard disk. Real-time analogue display of multichannel data (software selectable) on a RMS GR33a-1 heat-sensitive graphic recorder.

3.6 Base station equipment

Magnetometer: Cesium vapour, sampling at 1 sec and 0.01 nT sensitivity

GPS receiver: Sercel NR103 10-channel receiver

Digital acquisition: DOS 386 laptop

Analogue display: ink jet printer

4. SURVEY SPECIFICATIONS

a) Flying Specifications

1. The survey involves flying approximately 973 line kilometres. The flight line sketch of the block is shown in Figure 2.
2. The traverse line spacing is 200 metres.
3. The traverse line direction is 075*/225*.
4. Control lines were approximately 2000 metres apart, positioned orthogonal to the traverse lines.
5. Minimum line length is 8 kilometres.

b) Re-flights

Data was reflown when any of the following conditions were not met:

Altitude variation: Not to exceed ±10 m from nominal (120 m) for a duration greater than 25 seconds, unless required for safety or air regulations.

EM noise level: Not to exceed ±20 ppm over a distance greater than 3 km, as displayed on the late-time analogue traces.

Magnetic noise level: Not to exceed ±0.5 nT over a distance greater than 3 km.

Magnetic diurnal conditions: No departures greater than 10 nT from a chord of 1 minutes in length.

Line spacing: Not to exceed 1.5 times the nominal spacing over a distance greater than 3 km.

Digital data gaps: Not to exceed 5 seconds per line.

5. DATA PROCESSING

5.1 Flight path recovery

Data used: GPS positions recalculated from the recorded raw range data, differentially corrected and converted to UTM metres.

Final positions:

Projection: Transverse Mercator

Central meridian: 79° west

False Easting: 500,000 metres

False Northing: 0 metres

Scale factor: 0.99960

Spheroid: Clarke 1866

5.2 Altitude data (radar and GPS)

Noise editing: Alfatrim median filter used to eliminate the 2 high and 2 low values from the statistical distribution of a 9 point sample window.

Noise filtering: Triangular filters set to remove radar wavelengths less than 6 seconds and amplitudes below 25 feet; and GPS wavelengths up to 4 seconds and amplitudes up to 2.5 metres.

5.3 Diurnal magnetics

Noise editing: Alfatrim median filter used to locate and eliminate the 2 high and 2 low values within the statistical distribution of a 9 point sample window.

Culture editing: Polynomial interpolation via a graphic screen editor.

Noise filtering: Triangular filter set to remove wavelengths of less than 4 seconds and amplitudes up to 0.5 nT.

Extraction of long wavelength component: Low pass filter set to retain only wavelengths of greater than 26 seconds.

5.4 Magnetics

Lag correction: 3.7 seconds

Noise editing: 4th difference editing routine set to remove spikes of greater than 0.5 nT, followed by an alfatrim median filter eliminating 2 high and 2 low values from its calculation over a 9 point window.

Noise filtering: Triangular filter set to remove wavelength of less than 0.5 second, and an amplitude of less than 0.25 nT.

Diurnal subtraction: The long wavelength component of the diurnal (greater than 26 seconds) was removed from the data, prior to the levelling analysis.

Levelling: The first stage of levelling of the magnetic data (correcting for residual diurnal effects, altitude differences and positioning errors) was done on the line data by automatically comparing the values of the total field at the intersection of each line and control line. The differences were analyzed and a compensation was calculated at each intersection in order to provide a pattern of smoothly varying adjustments along each line and control line. Erratic differences, implying an error in the intersection location, were carefully checked and corrected. The second stage of levelling consisted of applying a micro-levelling routine to the gridded data to remove small residual errors that are not properly removed by conventional levelling of the line data. The difference in the gridded data sets before and after the application of the micro-levelling routine were computed and extracted along the original survey lines to be stored in the final line data set as the final magnetic compensation values.

Gridding: North area 50 m grid interval selected. South area 100 m grid interval selected.

5.5 Electromagnetics

Lag correction: 4.5 seconds

Data correction: The x and z-coil data was processed from the 20 raw channels recorded at 4 samples per second.

The following processing steps were applied to both the x & z coil data:

a) The data from channels 1 to 16 and 20 were corrected for drift in flight form (prior to cutting the recorded data back to the correct line limits) by passing a low order polynomial function through the baseline minimal along each channel, via a graphic screen display.

b) The data were edited for residual sferic spikes by examining the decay pattern of each individual EM transient. Bad decays (i.e. not fitting a normal exponential function) were deleted and replaced by interpolation.

c) The data was then corrected for incoherent, non-decaying low frequency noise events by analyzing the decay information through decay constant calculations, in order to separate the true signal from the low-frequency noise.

An adaptive filter was then applied to the data. This filter responds to local changes in the gradient in order to select and apply an appropriate time domain convolution ranging from very narrow to wide, depending on the local character of the anomaly.

d) The filtered data from the x and z-coils were then re-sampled to a sample rate of 5 samples/sec and combined into a common file for archiving.

Decay constant calculation: Off-time decay constants were calculated by fitting the channel information to an exponential function. The decay constant was calculated using channels 2 to 12 from the x-coil data (mean delay times of 499 to 3060 μsec).

Apparent conductivity: The apparent conductivity was calculated using the x-coil on-time channel 20 and the off-time channels 1 to 15, fitting the data to a homogeneous half-space model. The upper limit of the calculation has been set to 5000 mS/m, in accordance to the model used. The calculated values are stored in mS/m X1000.

Anomaly selection: Anomalies were selected by fitting the data from the x-coil channels, 1 to 12, to the vertical plate model in order to extract conductance and depth information. Positions of anomaly centers were derived from peaks and shoulders on channel 2.

Gridding: The decay constant and the apparent conductivity values data were gridded with a gridding interval of 50 m, for the 1:20,000 scale maps and 100 m for the 1:50,000 scale maps.

Correction for asymmetry: No correction for asymmetry (de-herringboning) was applied to the decay constant maps (Tau).

5.6 Final Products

Digital archives: The line data and grids are archived in GEOSOFT ASCII format. The line file contains 20 channels of x, y and z-coil data along with fiducials, Easting and Northings, magnetic data, altimeter data and auxiliary EM data. Grid files consist of total field magnetics, apparent conductivity, selected EM channel amplitudes (x-coil channel 2, 6, 13, 16 and z-coil 2) and decay constant of EM x-coil channels 1-12. All grids are delivered in two formats, regular and corrected for asymmetry. The flight path and EM anomalies are archived as vector files in Autocad DXF format. All of these files are delivered in two copies on CD-ROM, along with a full archive description.

Profile data: 1 set of multiparameter profiles displaying the following information at a horizontal scale of 1:20,000:

- Radar altimeter
- EM Primary field
- Vertical gradient
- Total field magnetics
- 12 off-time Z-coil channels
- 12 off-time X-coil channels
- 12 off-time Y-coil channels
- Hz monitor

Maps: All maps were produced on a UTM base with latitude/longitude at the corners and topography at 1:20,000 scale:

- Total field magnetics (2 colour copies);
- EM channel contour map (2 colour copies):
- EM Anomaly map (X component), with flight path at 1:20,000 scale (1 mylar and 4 black and white paper copies);
- Interpretation map (4 black and white copies with report).

6. GEOTEM INTERPRETATION

There were a number of bedrock conductors intercepted within the large project area, many of them displaying moderate to strong EM responses. Because of the generally low conductivity and thinness of the overlying Quaternary clay sequences, most of the primary electromagnetic field being transmitted from the GEOTEM systems will not be lost in any masking clays, thus enhancing somewhat the secondary effects from any deeper-seated bedrock conductors, particularly with the weaker conductors.

In reference to the Channel 1 EM Contour Map, this presentation, for the most part, is an indication of the pseudo-conductivity of the overlying overburden. It will also confirm the stronger bedrock conductors and more importantly, this presentation may extend the strike length for some of the intercepted bedrock conductors.

The surficial materials within the eastern half of Godfrey Township are highly conductive and would seem to indicate the nature of the overlying glaciolacustrine deposits of massive to varved silt and clay. They are perhaps thicker towards the eastern extremes of the survey block. There is also a region of similar conductivity within the north central area of Turnbull Township, where again, the surficial materials have been described as being Barlow-Ojibway Formation massive to varved silt and clay.

For the most part, the region through the center of the survey area is reasonably resistive, although there are a few outliers of what would appear to be thin clay layers. Because of the nature of the mineralization within some of the conductors (sphalerite), one would expect a rather poor EM response over some of these targets. Therefore, it is quite possible that the Channel 1 contour presentation may be indicating or outlining some of these targets.

The present exercise by this writer was to interpret the X-coil, Y-coil and Z-coil data sets, and if possible, to discriminate between the conductive overburden cover and the bedrock conductors. Of importance in this area, will be weak, steeply dipping conductors that may have been overlooked in other airborne and ground geophysical surveys.

This process involved the line-by-line assessment of the data sets, assigning conductor axes, direction and amount of dip where possible. The depth to the top of the conductors can be found in the Anomaly Listing at the back of this report. Assignment of zone numbers begin with the letters TG, representing the Turnbull-Godfrey Project.

A conductor axis has been assigned a solid line where the location of the interpreted conductor should be found on the ground. A dotted axis is one where the exact location of the conductor is unknown, although the conductor is still believed to be bedrock related.

The GEOTEM EM system, as with the INPUT EM system, produces characteristic EM responses, both for vertical and dipping conductors for the X-coil. For the former, two peaks are noted with a ratio between the first and second of approximately 1:10. This phenomena will be seen regardless of the flight direction.

With respect to a dipping conductor, the first peak becomes larger compared to the second peak, with a flattening of the dip. With a flat-lying conductor, the total EM response is related to the first peak, with very little or no second peak.

The Z-coil, on the other hand, also produces its own characteristic profile shapes for the various conductor geometries. Examples from model studies showing the different geometries are located in Appendix III.

The depth estimates were based on a Vertical 600m x 300m Plate nomogram, 90 Hz/2ms configuration, which was used for this airborne survey. Amplitudes for a number of the anomalies were established and then on a best fit basis, a depth was estimated. It should be understood that these depth estimates are approximate and are probably within 20% of the actual depth.

There would also appear to be a direct relationship between the changes in altitude of the aircraft, with the impending effects from the conductive overburden. As the aircraft becomes closer to the ground, a stronger secondary field is received in the bird. Conversely, the higher the aircraft is from the conductive clays, the more the EM traces go back to background. One only has to look at the EM analog charts to see the results of this phenomena.

There were a number of short, isolated conductors intercepted, most displaying moderate to very strong conductivity. The majority of these conductors do not have direct magnetic correlation, which would preclude iron formation as being a source. They tend to be either located on the flanks of magnetic features, suggesting the relationship with geological contacts or with magnetic lows. In the areas that do have direct magnetic correlation, pyrrhotite is the probable source.

The attitudes of most conductors are generally towards the west at a steep to almost vertical angle. One area in particular, towards the northeastern region of the survey area, the dip of the conductors may be towards the east.

There are cultural effects in the region, including power lines, telephone lines and roads. Not all of these effects will produce a response on the 60 Hz. monitor trace. Therefore, one must utilize both the topography maps and the VHS video tapes from this airborne survey, in order to explain any GEOTEM anomaly.

The following is a table summarizing some of the characteristics for each zone, along with a ranking of their geophysical attributes. The latter does not necessarily mean a priority ranking, as some of these conductors have been previously drilled. This aspect will be discussed in more detail later in the report. Under Geophysics Ranking, H is for a high ranking, M is for a medium ranking and L is for a low ranking.

	1 very strong	B- bedrock	D- direct
	2 strong	S- surficial	F- flanking
	3 moderate		L - low
	4 weak		
	5 very weak		

Zone	EM Strength	Probable Source	Magnetics (nT)
TG19	5	S?	L
TG20	4	B	L
TG25	5	S?	D80
TG26	5	S?	L
TG27	4	B	F
TG28	4	B	F
TG31	2-4	B	D130
TG32	2-3	B	L
TG33	1	B	L
TG34	1	B	F
TG35	4	B?	F
TG36	2-4	B	F
TG37	2-4	B	F
TG38	1	B	L
TG39	1	B	F
TG40	2	B	L
TG45	3	B	D60
TG46	3-4	B	F

Discussion of Airbourne Anomalies

In order to facilitate the discussion for all of the zones within this survey area, a few comments will be given for each of the outlined conductors, relating conductivity, magnetics and geology.

Zone TG19

The lone intercept exhibits a very weak EM response, in fact, one that could be associated with compensation effects (bird swinging). This problem tends to be more on the X-coil. The Z-coil data is actually indicating conductive surficial materials. No further work is warranted.

Zone TG20

The EM response on both the X-coil and Z-coil traces are rather weak, but they are still believed to be bedrock related. There is no magnetic association however. In reference to the geological compilation maps, it is noted that many diamond drill holes have been put down in this region surrounding this anomaly. Chalcopyrite, sphalerite, pyrrhotite and pyrite were intercepted in most holes. It is interesting of course, that so many drill holes were put down on what is believed to be only a short, single conductor. Further work is definitely not warranted for this zone.

Zone TG25

There are four very weak EM responses that are associated with this zone. Their proximity to the power lines has also created the problem of somewhat noisy data. It is quite likely that conductive surficial materials are the cause. On this basis, ground follow-up is not warranted.

Zone TG26

All of the anomalies associated with this zone exhibit very weak EM responses and generally are associated with a magnetic low. Conductive surficial materials are believed to be the cause. No further work is warranted.

Zone TG27

Although this lone intercept exhibits a weak EM response, it is still believed to be associated with a bedrock source. The long magnetic feature to the east of this zone is a diabase dike. It seems that the conductor may have been previously tested. In reference to the geology map, it is noted that the mafic volcanics, felsic volcanics and metasedimentary rock types were intersected. It seems that pyrrhotite and pyrite was the mineralization intercepted.

Zone TG28

It would seem that this conductor has also been tested before, with a couple of holes put down. Metasedimentary rocks, along with some mafic volcanics were intersected, with chalcopyrite, sphalerite, pyrrhotite and pyrite being the sulfides. The better EM responses seem to be on the north-south tie line, suggesting perhaps a more east-west strike direction. In reference to the geology map, it will be noted that several drill holes have been put down east of this zone, probably enough to explain this conductor.

Zone TG31

This conductor has seen several drill holes put down on it, the results of which are not known to this writer. The four holes were drilled in an easterly direction, the same direction as what has been interpreted for the dip of the conductor. The latter may be near vertical near surface, but could be flatter down-dip. The EM responses range from weak to strong, while one portion of the conductor has a magnetic intensity of 130 nanoTeslas. Whether or not the latter is related to the diabase dike or pyrrhotite will have to be determined. It is suggested that any ground EM results over this zone be
re-evaluated for direction of dip.

Zone TG32

One of the best EM responses intercepted on this zone was on a north-south tie line. Although the magnetics do not seem to indicate this, the strike of the geology may be more NE-SW. In any event, several drill holes have been put down already on the conductor, so further work is not warranted. Mafic volcanics are believed to be the underlying rocks.

Zone TG33

All of the anomalies along this conductor exhibit very strong EM responses and generally are located within a magnetic low. However, the latter is somewhat deceiving because of the higher intensity magnetic responses from the diabase dikes that are located on either side of the conductor. Without the influence from the dikes, there may be a weak magnetic response directly associated with this conductor. Just to the north of this conductor is the former Genex Mine, where chalcopyrite and sphalerite was being extracted. Because of the number of drill holes that have been put down on this conductor and apparently without any success, further work is not warranted.

Zone TG36

Both the north and south ends of the conductor have been previously drilled, with the results not known to this writer. The strength of the EM responses range from weak to strong, with the better conductivity coinciding with the locations of the drill holes. It would seem unlikely that any further work should be carried out on the Zone.

Zone TG37

It would appear that this conductor has been drilled as well, possibly with three holes. Felsic volcanics are predominate rock types in this area, although diabase dikes are in close proximity. Further work is probably not warranted.

Zone TG38 & TG39

Both conductors exhibit very strong Em responses and generally correlate with a magnetic low. They would be excellent conductors to follow-up, unfortunately, both have been drilled. No further work is warranted.

Zone TG40

This conductor exhibits a strong EM response and is correlating with a magnetic low. Fortunately, it does not seem to have been drilled before. Note also the NW striking fault zone. Because of the existence of felsic and mafic volcanics in the immediate region, this conductor should be followed up with a ground EM survey.

Zone TG45

The short conductor exhibits a moderate EM response and has direct magnetic correlation, with an intensity of 60 nanoTeslas. It appears that a couple of drill holes have been put down, but interestingly enough however, they would appear to have been drilled to the north, parallel to the strike of the conductor. This aspect should definitely be confirmed. If so, then further work may be warranted.

Zone TG46

A similar scenario exists for this conductor, as it did for Zone TG45. A drill hole has been put down parallel to the strike of the conductor. There is no question that the EM responses are bedrock related. Since there are felsic to intermediate volcanics in the area, this trend will be worthy of follow-up.

7. CONCLUSIONS AND RECOMMENDATIONS

On the basis of the results of this airborne survey, ground follow-up work is recommended for several of the selected targets, as outlined by the writer on the Interpretation Map. It is felt that most of these targets will be of primary interest for their VMS Cu-Zn potential, although precious metals and Ni-Cu mineralization may be of secondary interest. As mentioned previously, there is generally a thin, sometimes thick, layer of overburden material with low to moderate conductivity, over most regions of the survey area. As a result, there may be a masking effect throughout the entire region. However, it was not considered to be a major obstacle to the penetrating ability of the high powered GEOTEM EM system to detect bedrock conductors. The Z-coil data also assisted with this interpretation.

It is strongly recommended that a complete and comprehensive evaluation be made of the magnetic data and especially the calculated vertical gradient magnetic data. All available geological information should be obtained either through government and proprietary geological maps, diamond drill holes or through the assessment files. Once such information is obtained, a broad scale geological map should be compiled and then, in reference to the calculated vertical gradient map, a reasonable pseudo-geological map can then be prepared for this portion of the Kam-kotia Greenstone Belt.

Structural information should be obtained through a more comprehensive evaluation of the magnetic data as well, particularly with the vertical gradient data. Crosscutting faults are evident within the survey block. These are extremely important with respect to any mineralogical controls for base metals and as such, the development of these structural events through interpreting the magnetic data will be strongly advised. Strike slip fault zones or deformation zones are also extremely important horizons for potential precious metal bearing environments and it is these signatures that should be pursued when carrying out a detailed analysis on the magnetic data, particularly in the regions of the ultramafic (gabbro) rock types.

The association of sulphides within these structural features will assist in the pursuit with the means of ground geophysical methods.

It is suggested that this assessment of the magnetics be made before any serious follow-up of the electrical conductors is made. This will certainly make things easier, once a pseudo-geological map has been established.

As a result of the re-interpretation of the multicoil GEOTEM airborne data, some confidence has been gained with respect to distinguishing between bedrock conductors, both strong and weak, and conductive overburden. In evaluating the X-coil and Z-coil profiles across the project area, unique characteristics were noted in the shape of the profiles, that assisted with the selection of bedrock conductors.

There are certain conductor geometries however, that would hinder or make it very difficult to distinguish between a bedrock source and conductive overburden based on both the X-coil and Z-coil data, one such source being a flat-lying orebody. More interpretive assessment would certainly have to be carried out. It is assumed however, and there are always exceptions, that most conductors in this area are moderately to steeply dipping.

Most, if not all, of the conductors outlined on the Interpretation Map are deemed to be bedrock related. Depending on the degree of work that has previously been carried out on these zones, ground reconnaissance surveys may be warranted for each. Some of the recommended targets are Zones TG3, TG9, TG14, TG17, TG18, TG40, TG50 and TG53.

In regards to a ground follow-up geophysical system, a horizontal loop Max-Min EM system could be utilized. It would seem that detectability should be easy for most of the types of conductors intercepted in this survey area. In areas of poorly mineralized conductors, but with high anomalous geochemical results, then an induced polarization (IP) survey would be more appropriate. It may also be more beneficial, if a deeper penetrating electromagnetic system (TEM) were utilized, particularly if the conductors are deep and if semi-massive sulphides are involved. Obviously, the cost factors for both systems will have to be considered.

The writer has given brief comments on all selected conductors and it is within Section 6 of this report where the client will establish some feeling for the types of conductors recommended. It is a matter of using all resources, including geophysics, drill hole information and the compilation of a pseudo-geological map. Further till or soil sampling over the regions containing the selected targets, may render additional information that may lead to an interesting on-going exploration program.

Respectfully submitted,

Robert J. de Carle
Consulting Geophysicist

November 9, 1998

APPENDIX I

REFERENCES

MacRae, B.A. and Deosaran Maharaj
1981: Godfrey Township, Cochrane District; Ontario Geological Survey Preliminary Map P. 2075, Timmins Data Series, scale 1: 15,840 or 1 inch to 1/4 mile. Data compiled 1980.

Prospectors Alliance Corp.
1998: Proprietary geological compilation and drilling maps. Scale 1:20,000.

APPENDIX II

CERTIFICATE OF QUALIFICATIONS

I, ROBERT J. DE CARLE, certify that: -

1. I hold a B.A. Sc. in Applied Geophysics with a minor in geology from Michigan Technological University, having graduated in 1970.

2. I reside at 28 Westview Crescent in the town of Palgrave, Ontario.

3. I have been continuously engaged in both professional and managerial roles in the minerals industry in Canada and abroad for the past twenty-eight years.

4. I have been an active member of the Society of Exploration Geophysicists since 1967 and I hold memberships as a Fellow in good standing in The Geological Association of Canada and other professional societies involved in the minerals extraction and exploration industry.

5. The accompanying report was prepared from information published by government agencies, materials supplied by Prospectors Alliance Corp., and from a review of the proprietary airborne geophysical survey flown by Geoterrex Limited for Prospectors Alliance Corp. I have not personally visited the property.

6. I have no interest, direct or indirect, in the property described, but I do hold securities in Prospectors Alliance Corp.

7. This report may be used for filing with the various regulatory bodies as may be required.

Signed,

R.J. de Carle

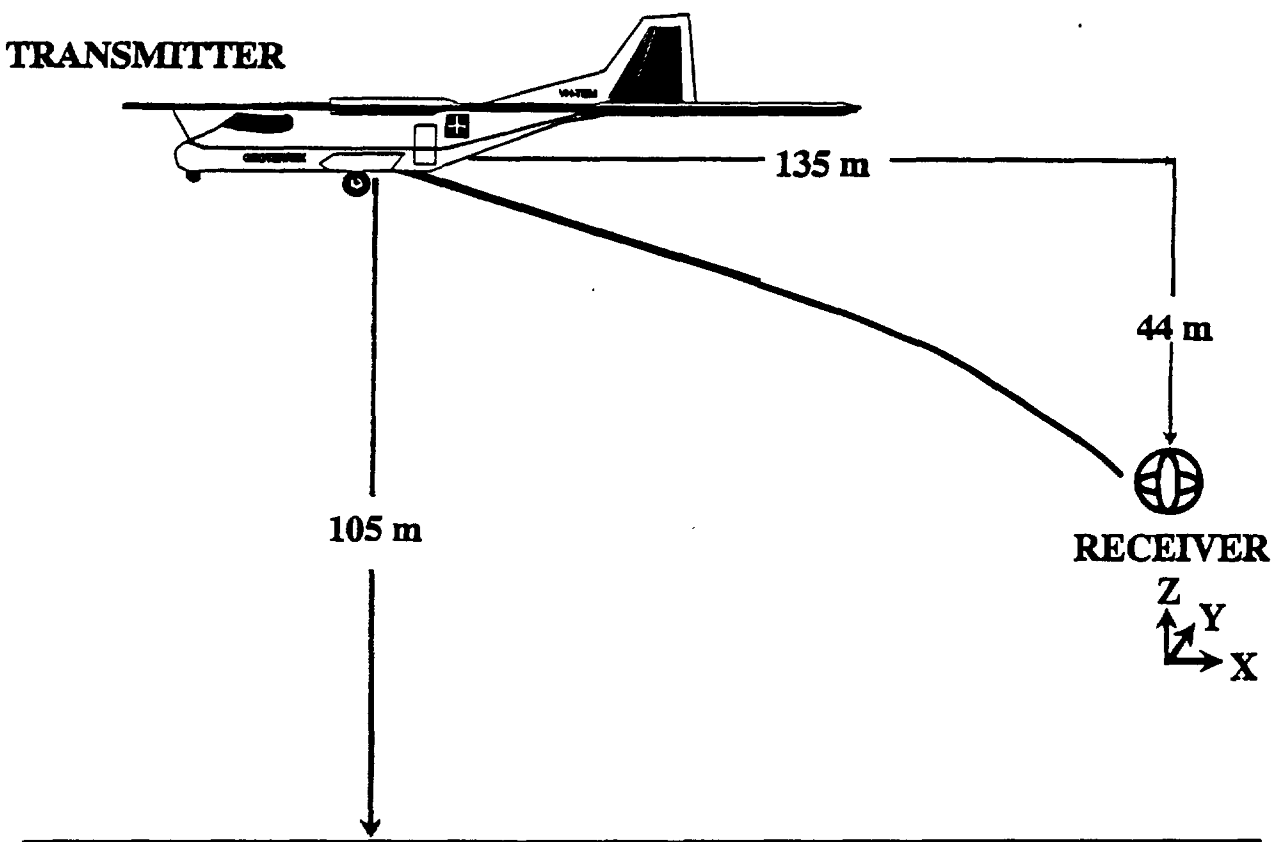
Robert J. de Carle
Consulting Geophysicist

Palgrave, Ontario
November 9, 1998

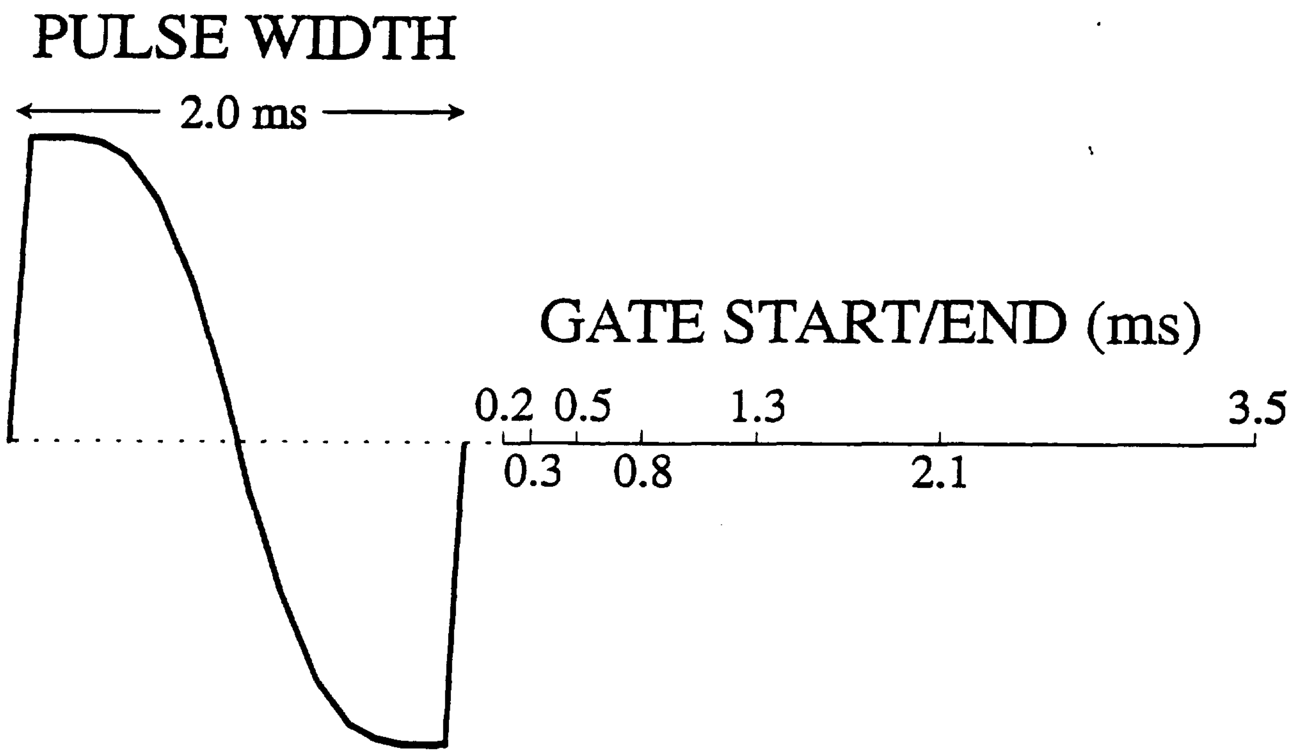
APPENDIX III

MULTICOMPONENT GEOTEM MODELLING

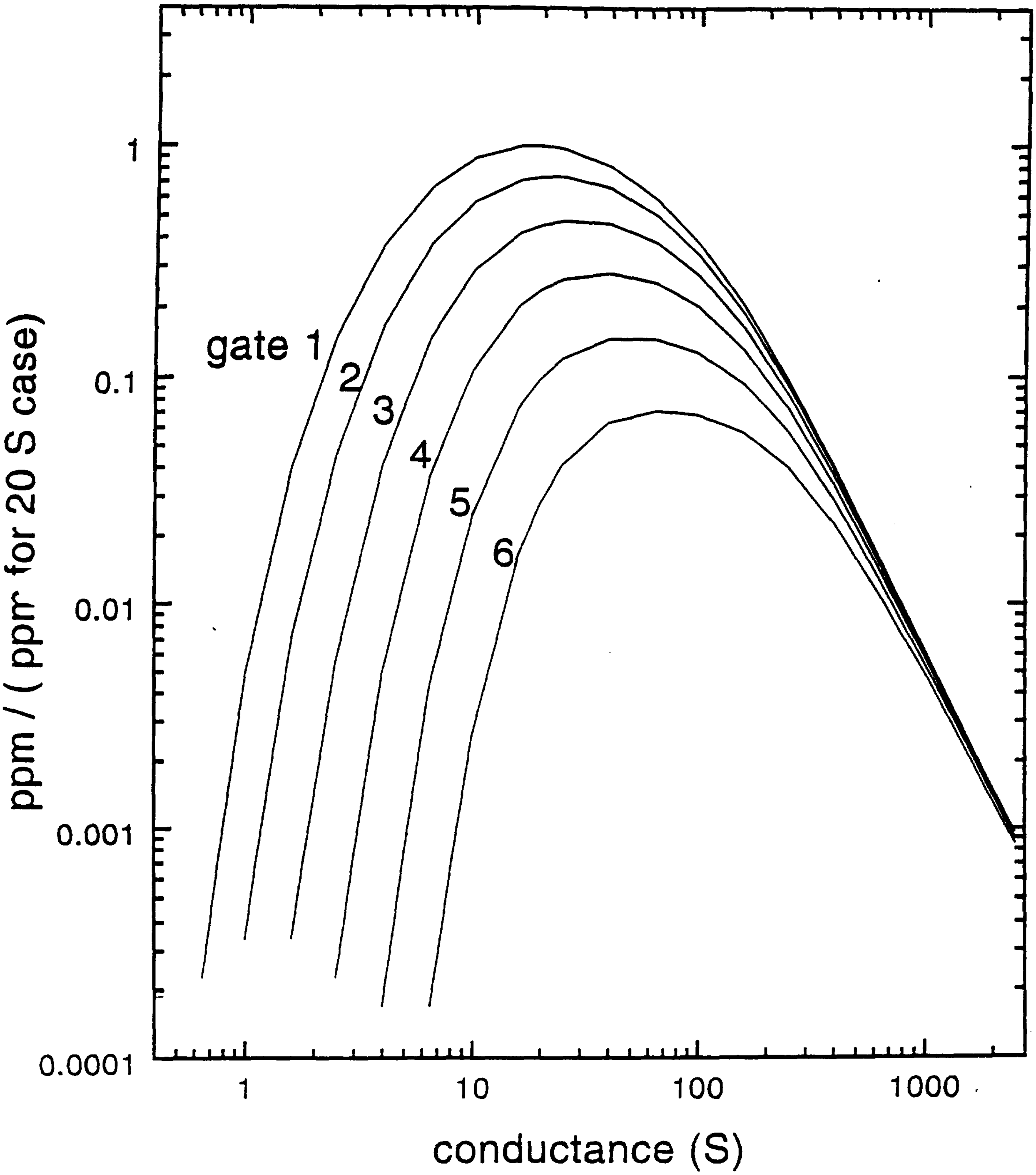
GEOTEM Geometry for modelling



Transmitter Waveform and Receiver sampling



Nomogram



gate 1
2
3
4
5
6
1
0.1
0.01
0.001
0.0001
1
10
100
1000
ppm / (ppm for 20 S case)
conductance (S)

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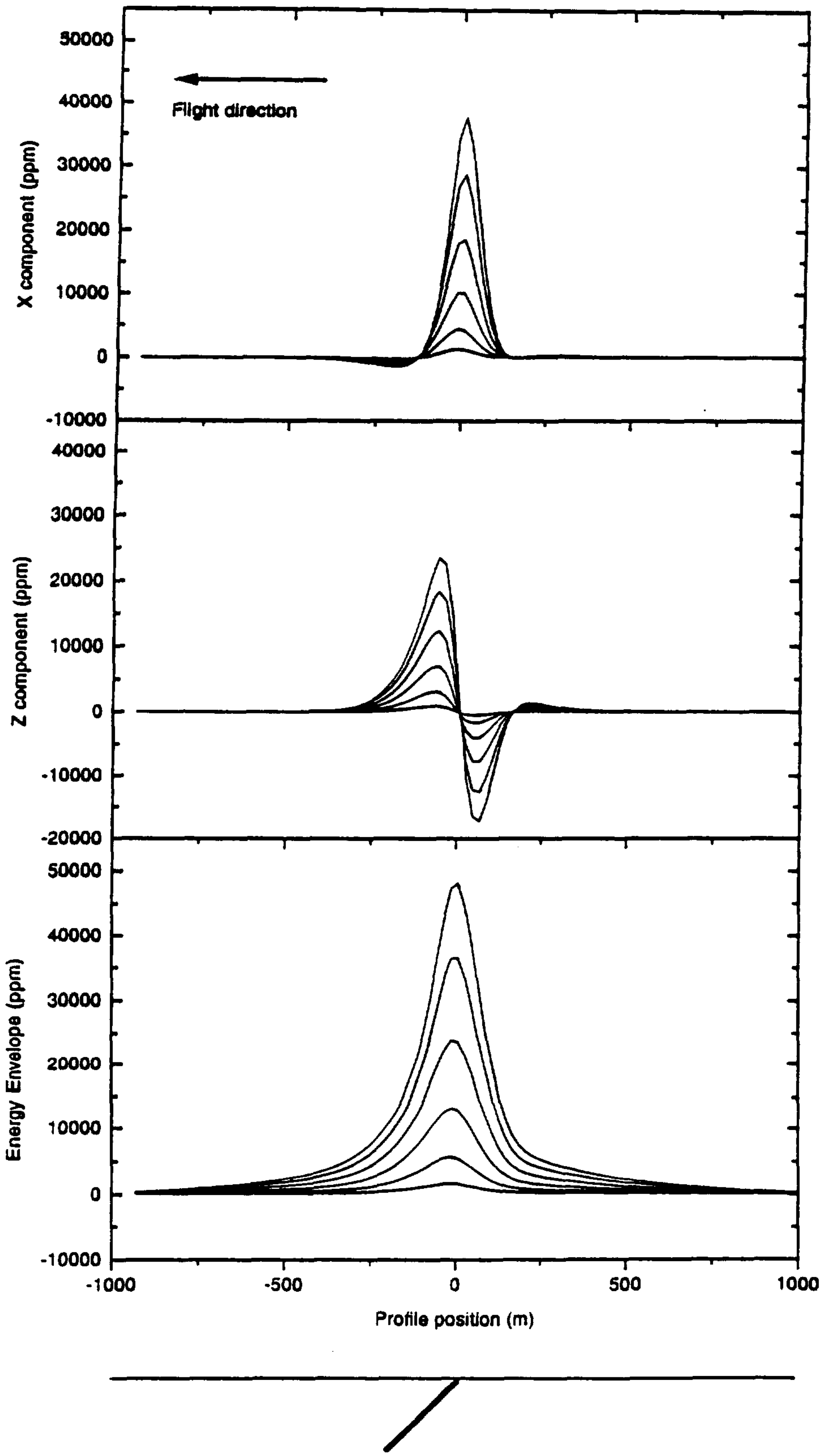

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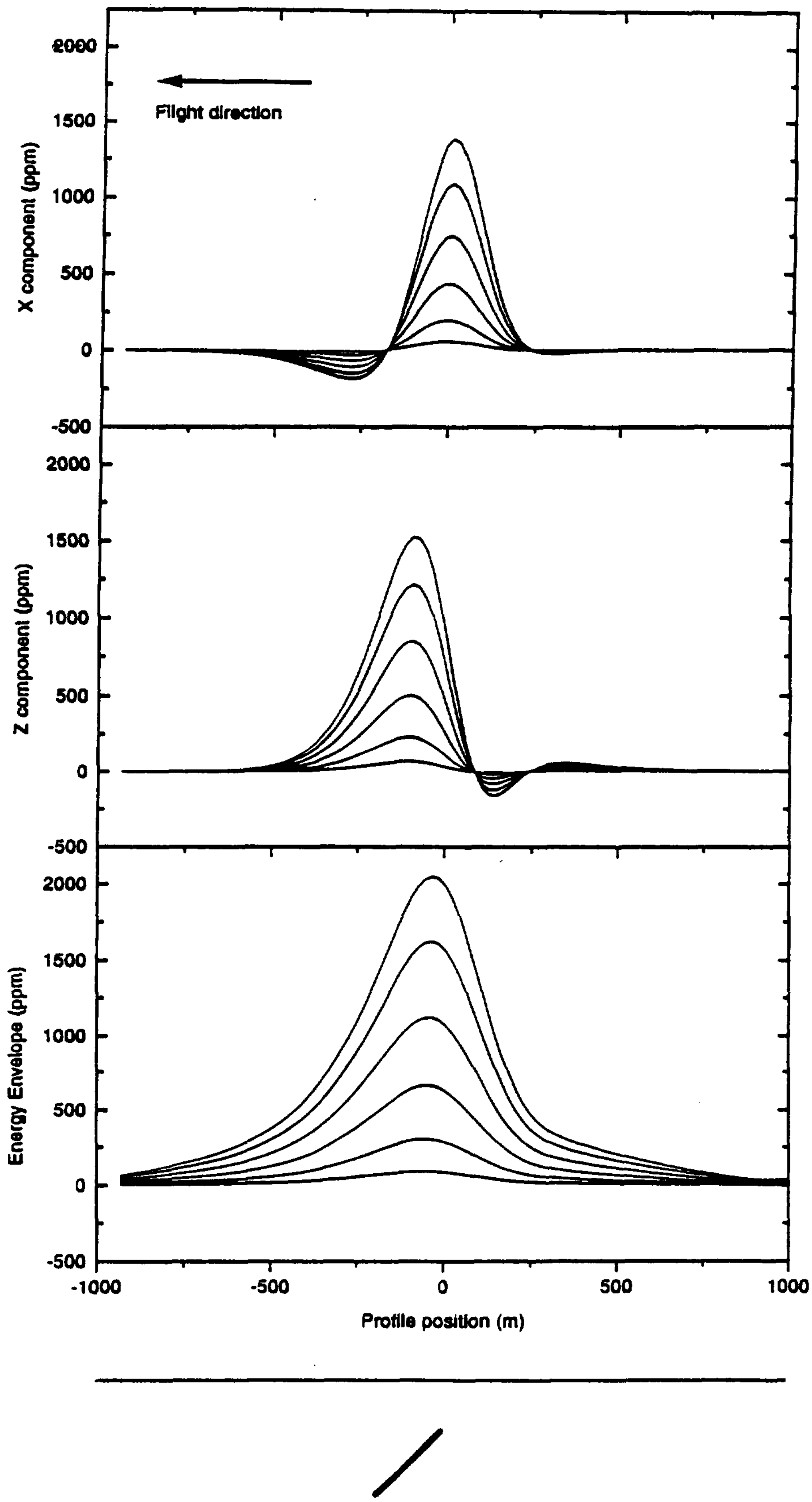

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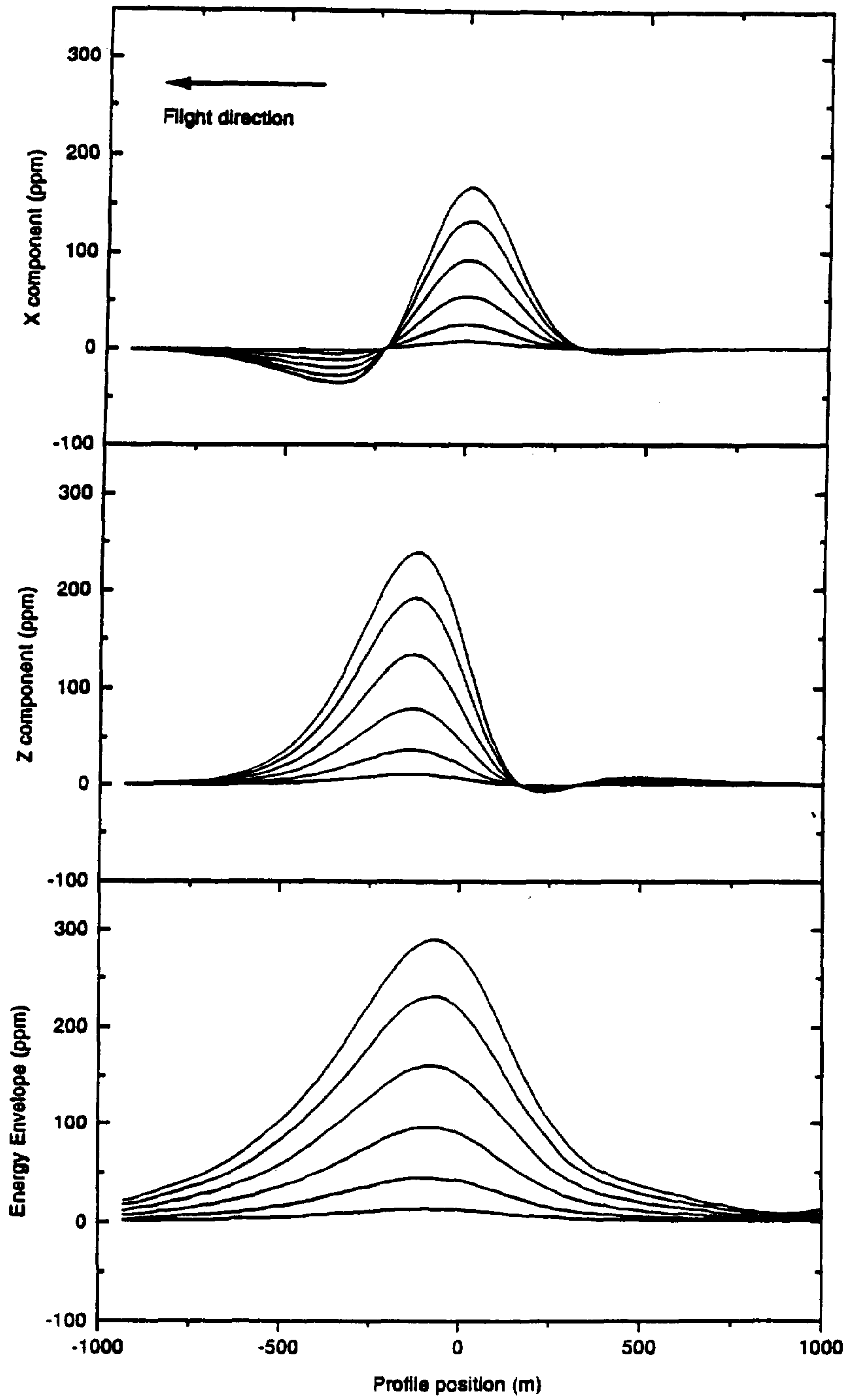

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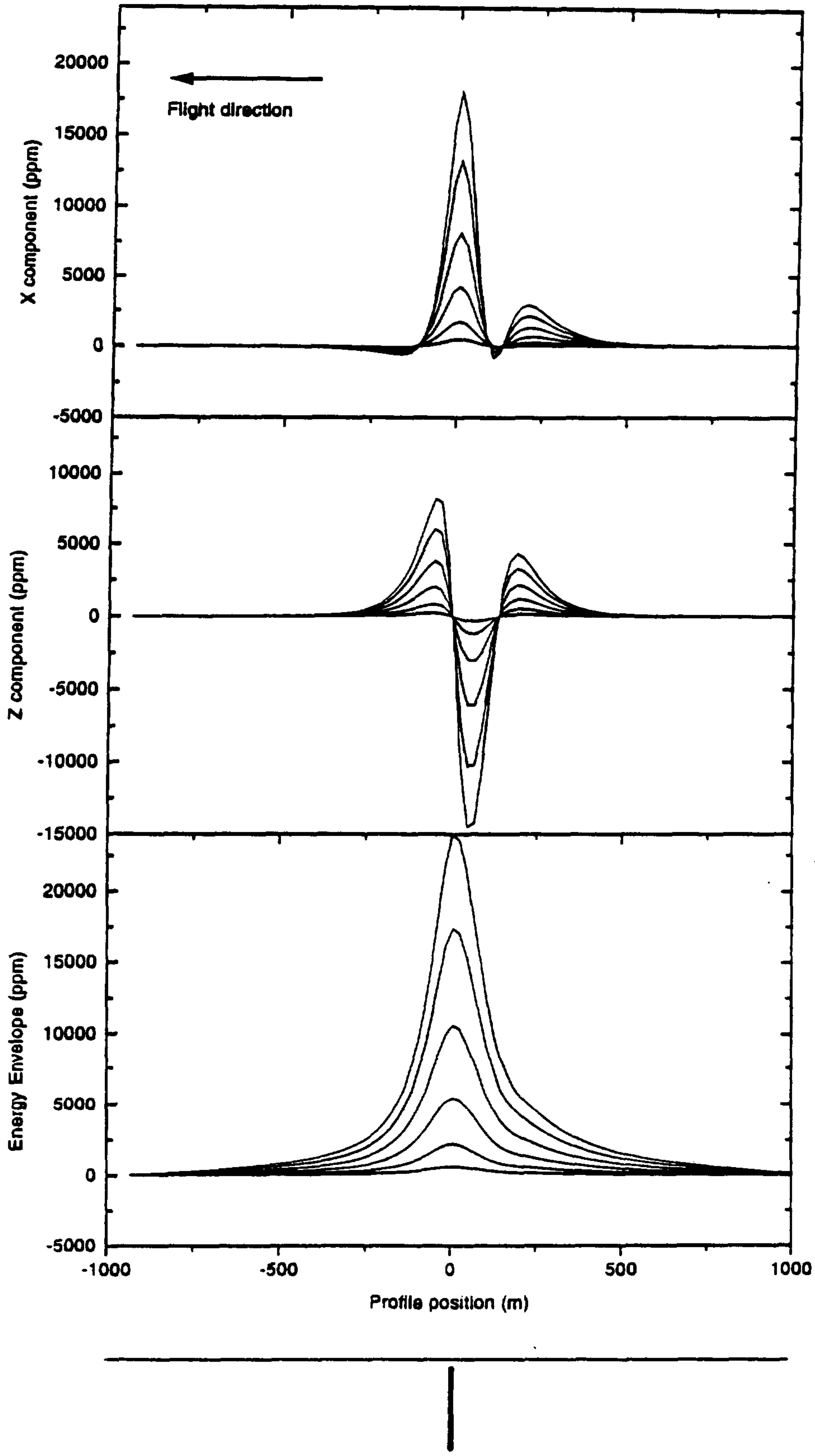

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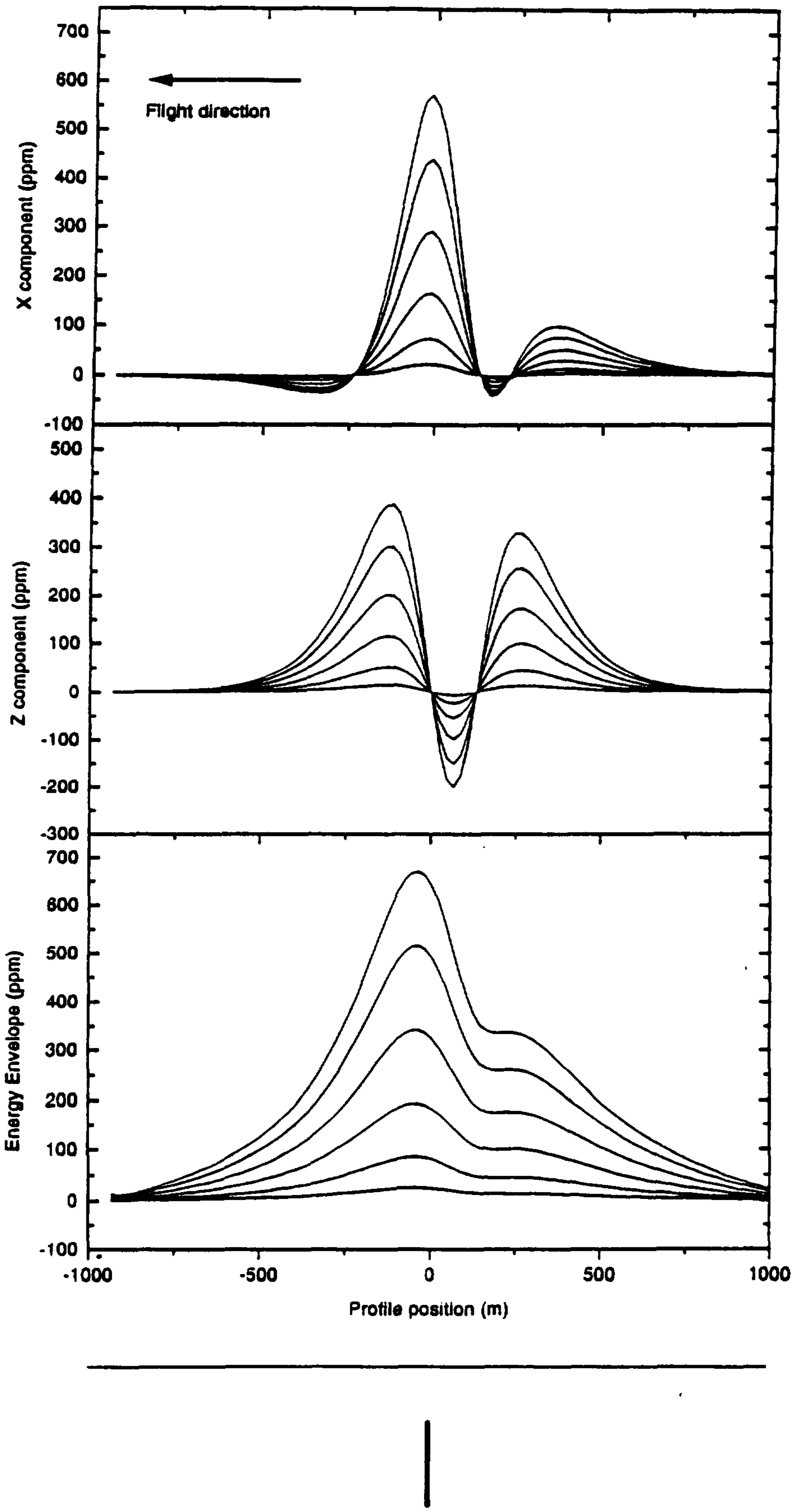

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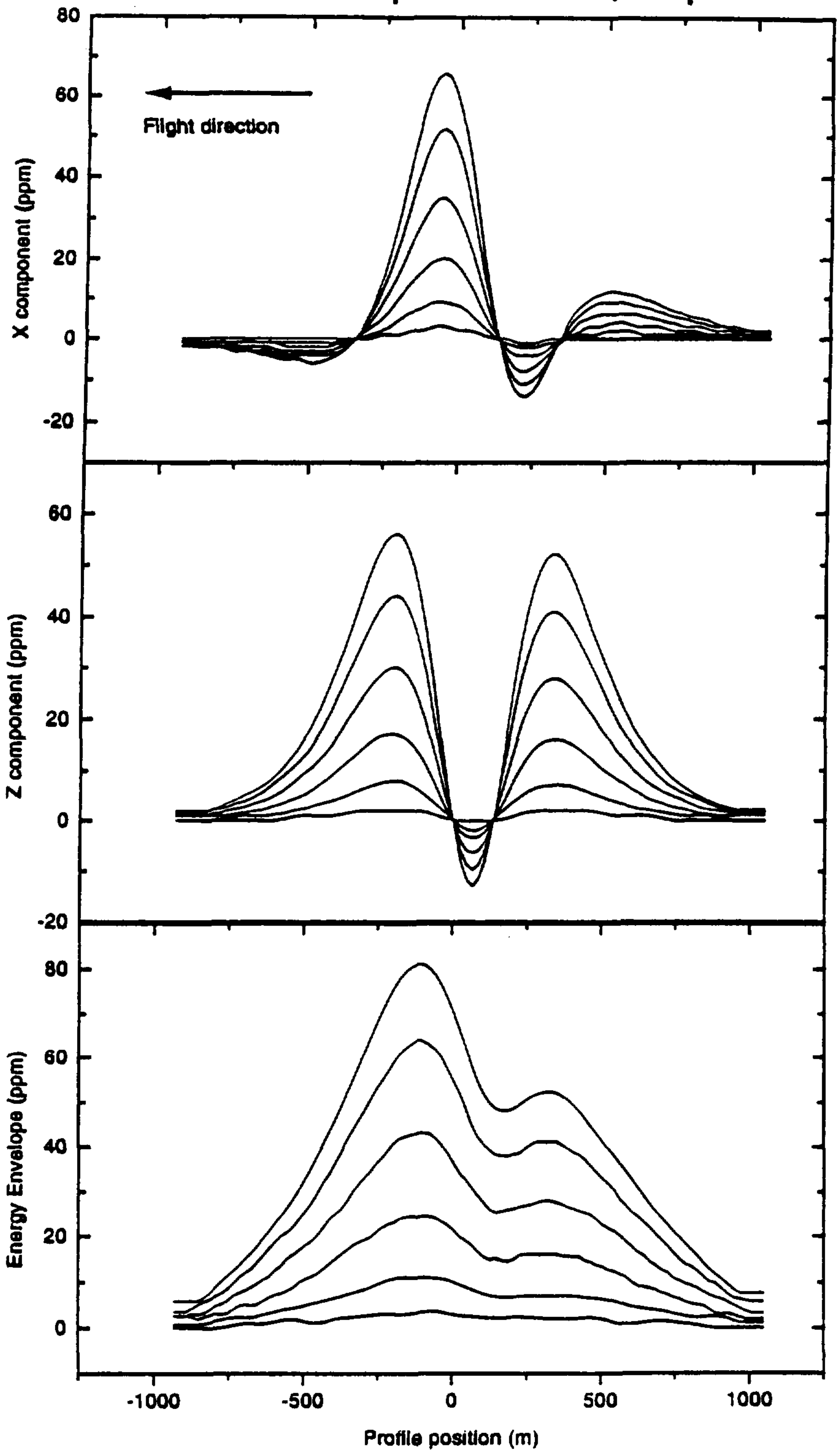

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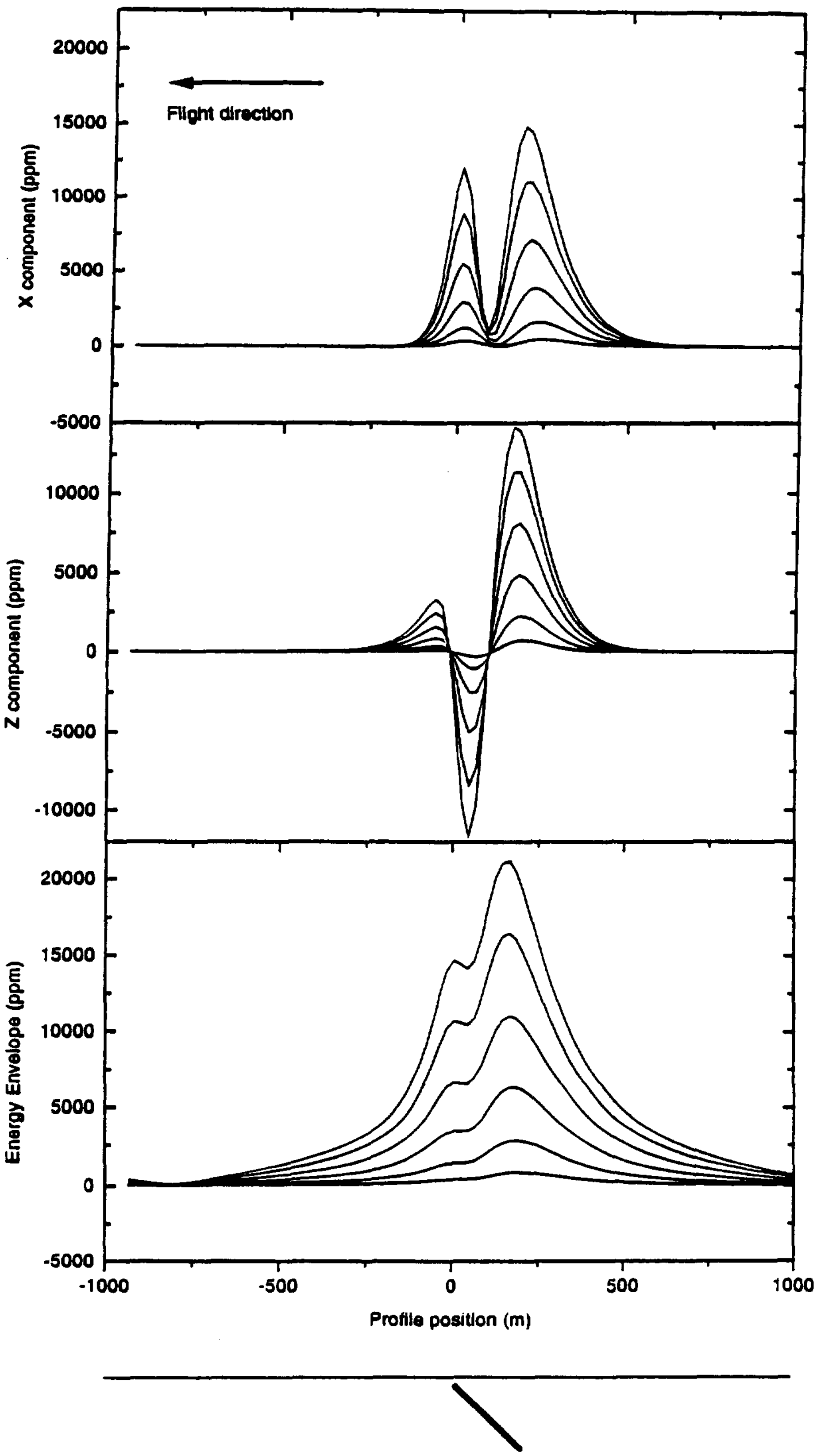

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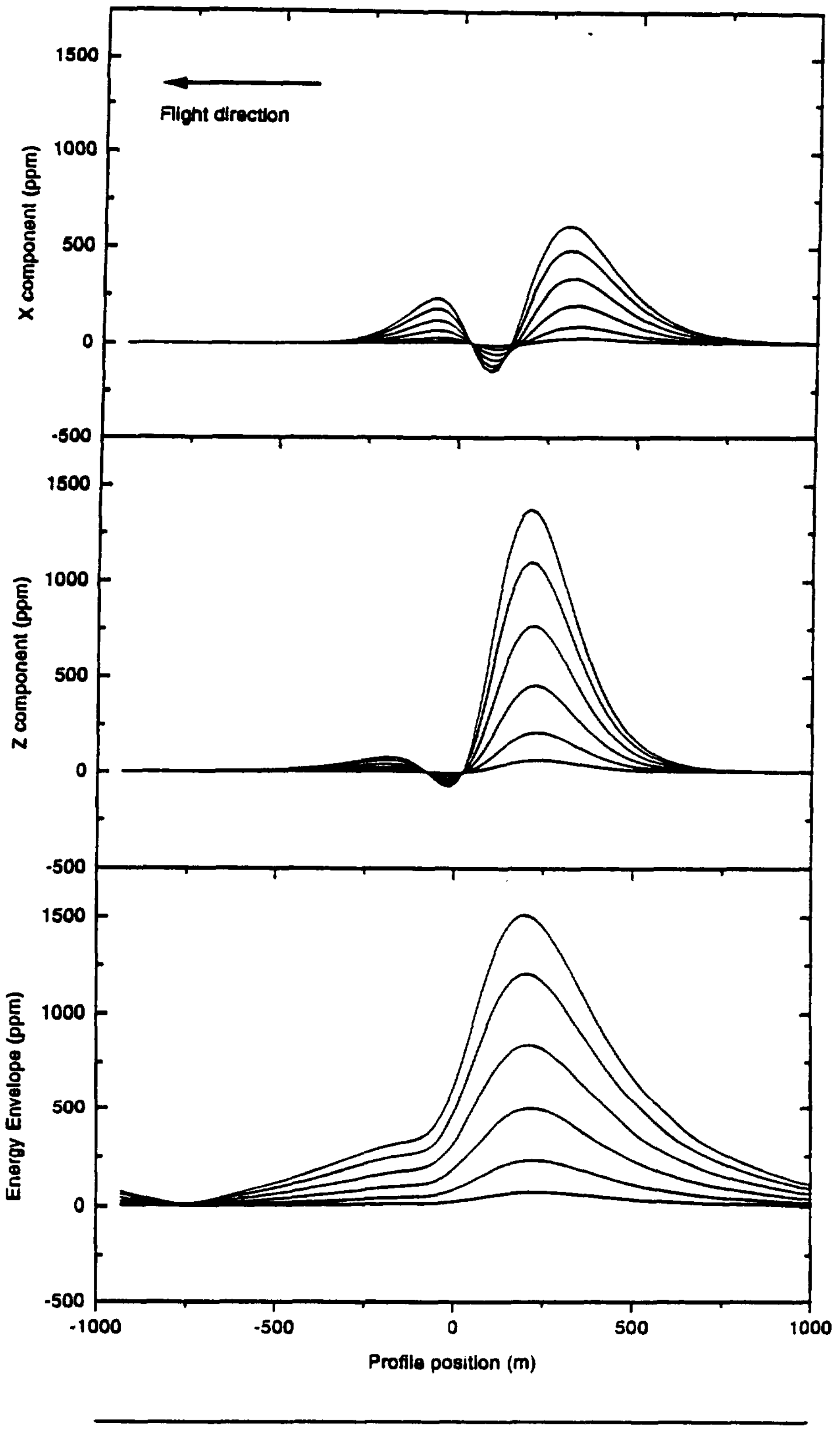


Plate: depth =300; dip =45

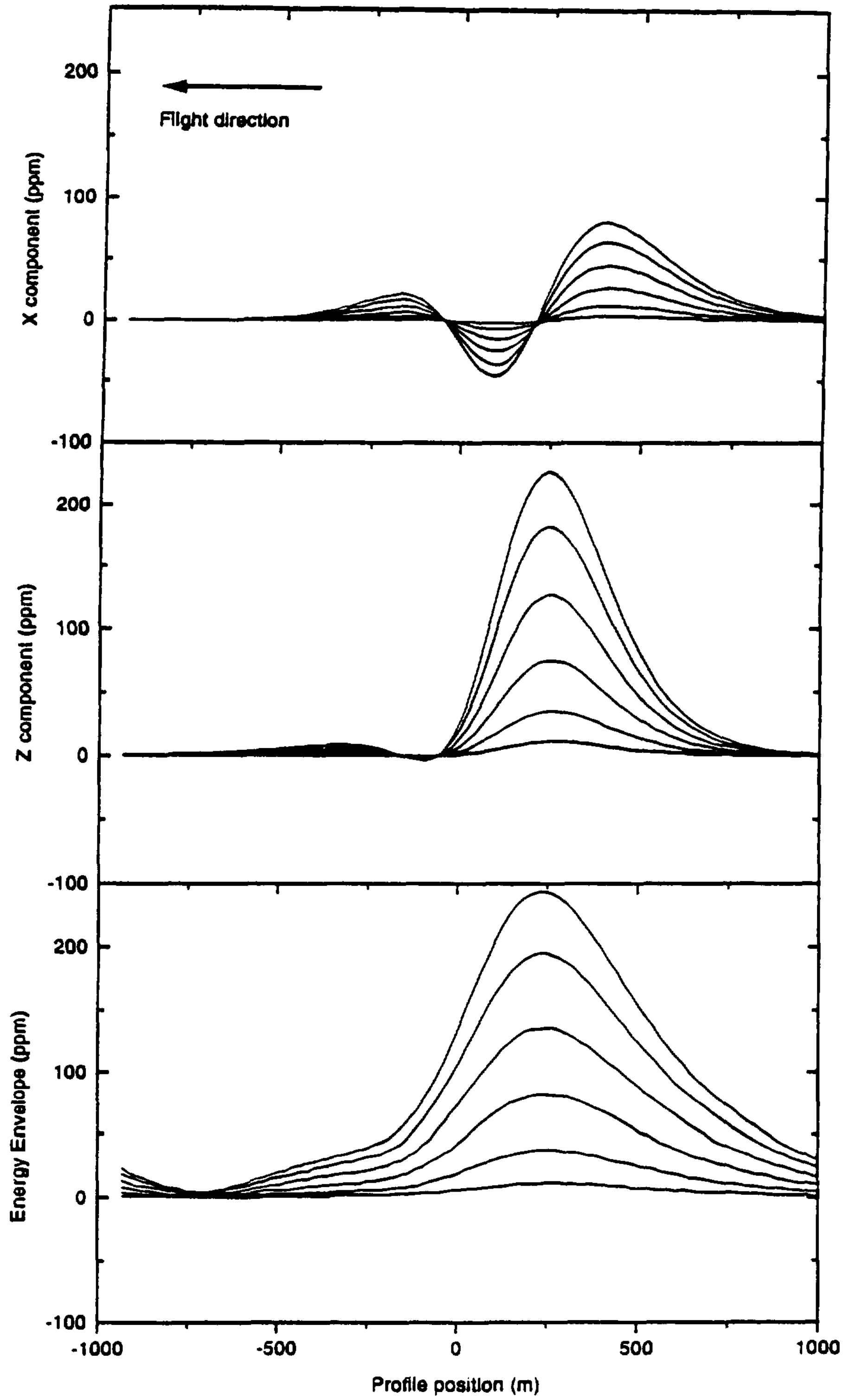
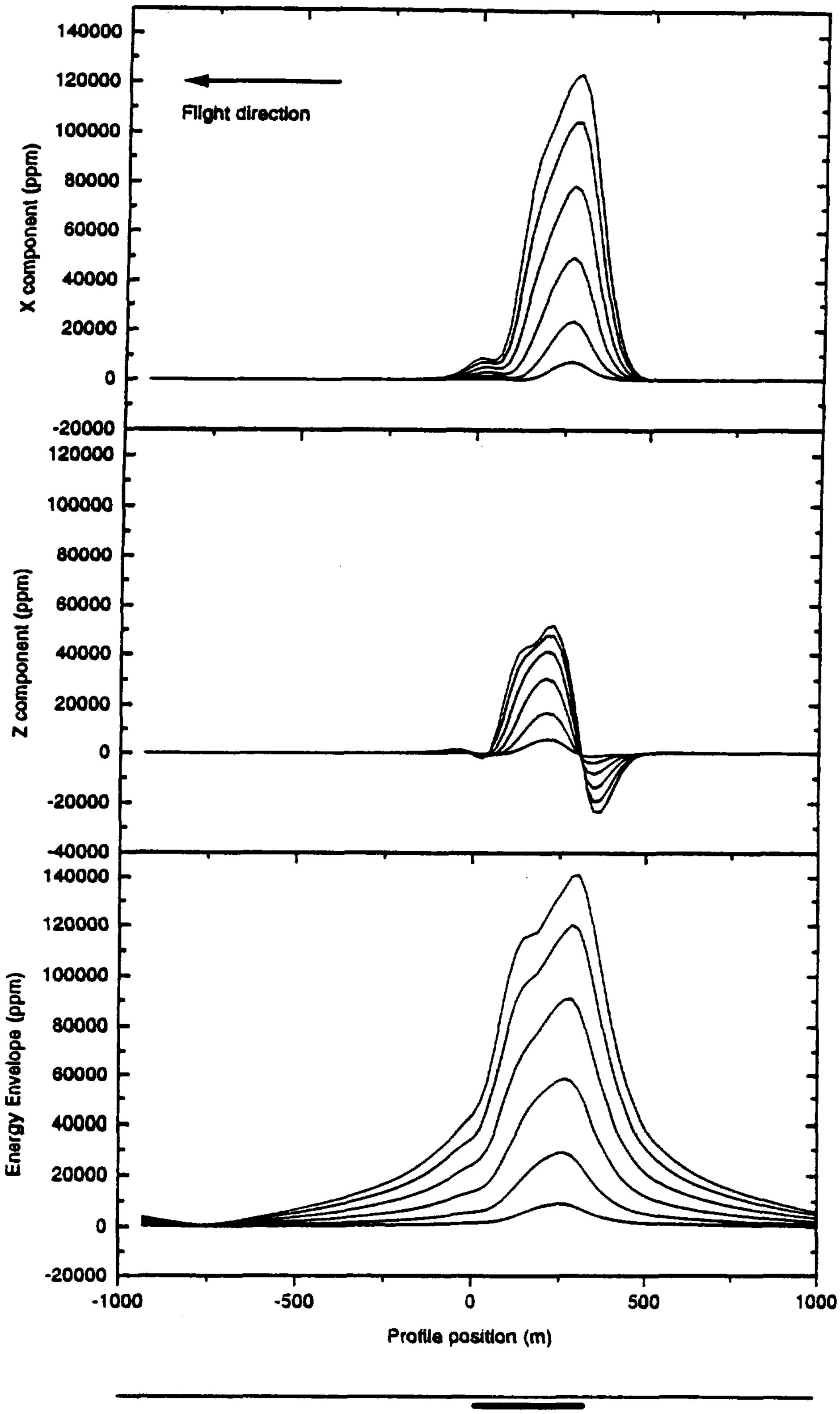


Plate: depth =0; dip =0



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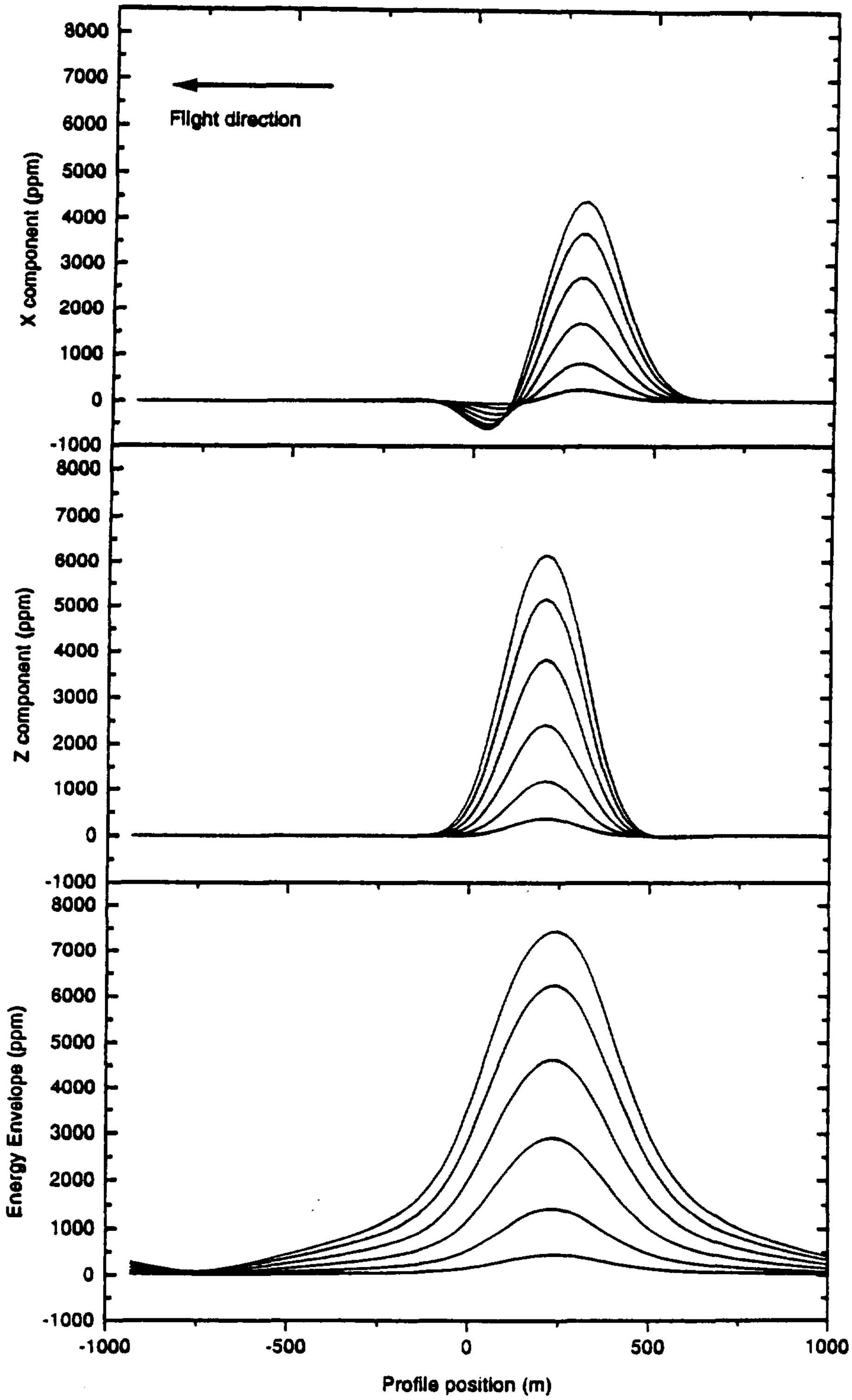

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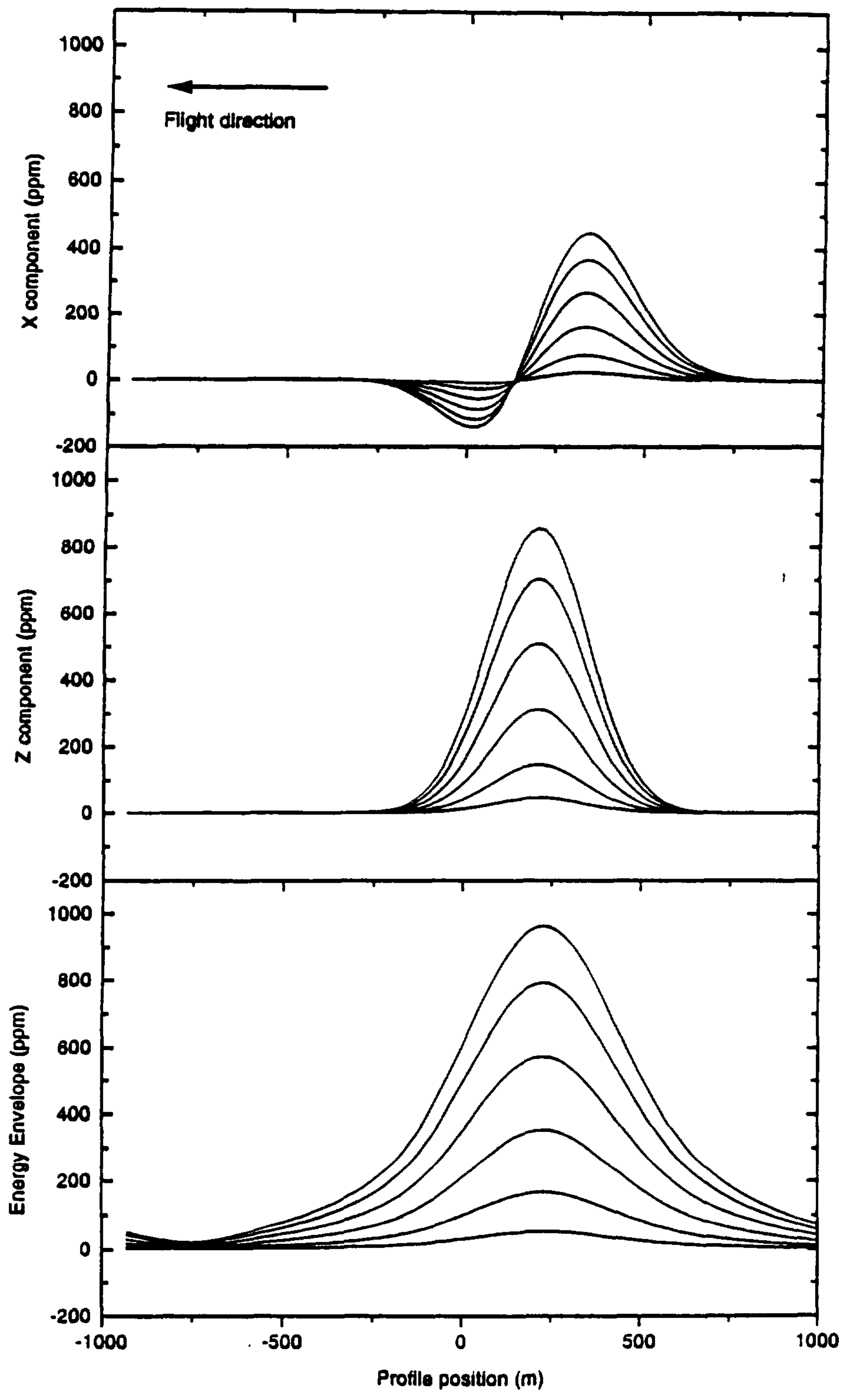

APPENDIX IV

GEOTEM INTERPRETATION

GEOTEM[R1] INTERPRETATION

I. INTRODUCTION

The basis of the transient electromagnetic (EM) geophysical surveying technique relies on the premise that changes in the primary EM field produced in the transmitting loop will result in eddy currents being generated in any conductors in the ground. The eddy currents then decay to produce a secondary EM field which may be sensed as a voltage in the receiver coil.

GEOTEM (GEOterrex Transient ElectroMagnetic system) is an airborne transient (or time-domain) towed-bird EM system incorporating a high-speed digital receiver which records the secondary field response with a high degree of accuracy. Most often the total magnetic field is recorded concurrently.

Although the approach to GEOTEM interpretation varies from one survey to another depending on the type of data presentation, objectives and local conditions, the following generalizations may provide the reader with some helpful background information.

The main purpose of the interpretation is to determine the probable origin of the conductors detected during the survey and to suggest recommendations for further exploration. This is possible through an objective analysis of all characteristics of the different types of conductors and associated magnetic anomalies, if any. If possible the airborne results are compared to other available data. A certitude is seldom reached, but a high probability is achieved in identifying the conductive causes in most cases. One of the most difficult problems is usually the differentiation between surface conductors and bedrock conductors.

II. TYPES OF CONDUCTORS

A. Bedrock Conductors

The different types of bedrock conductors normally encountered are the following:

1. Graphites. Graphitic horizons (including a large variety of carbonaceous rocks) occur in sedimentary formations of the Precambrian as well as in volcanic tuffs, often concentrated in shear zones. They correspond generally to long, multiple conductors lying in parallel bands. They have no magnetic expression unless associated with pyrrhotite or magnetite. Their conductivity is variable but generally high.

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[1] GEOTEM[R]: Registered Trade Mark of Geoterrex Limited.

2. Massive sulphides. Massive sulphide deposits usually manifest themselves as short conductors of high conductivity, often with a coincident magnetic anomaly. Some massive sulphides, however, are not magnetic, others are not very conductive (discontinuous mineralization), and some may be located among formational conductors so that one must not be too rigid in applying the selection criteria.

   In addition, there are syngenetic sulphides whose conductive pattern may be similar to that of graphitic horizons but these are generally not as prevalent as graphites.

3. Magnetite and some serpentinized ultrabasics. These rocks are conductive and very magnetic.

4. Manganese oxides. This mineralization may give rise to a weak EM response.

B. Surficial Conductors

1. Beds of clay and alluvium, some swamps, and brackish ground water are usually poorly conductive to moderately conductive.

2. Lateritic formations, residual soils and the weathered layer of the bedrock may cause surface anomalous zones, the conductivity of which is generally low to medium but can occasionally be high. Their presence is often related to the underlying bedrock.

C. Cultural Conductors (Man-Made)

1. Power lines. These frequently, but not always, produce a conductive type of response on the GEOTEM record. In the case of direct radiation of its field, a power line is easily recognized by a GEOTEM anomaly which exhibits phase changes between different channels. In the case of a grounded wire, or steel pylon, the anomaly may look very much like a bedrock conductor.

2. Grounded fences or pipelines. These will invariably produce responses much like a bedrock conductor. Whenever they cannot be identified positively, a ground check is recommended.

3. General culture. Other localized sources such as certain buildings, bridges, irrigation systems, tailings ponds etc., may produce GEOTEM anomalies. Their instances, however, are rare and often they can be identified on the visual path recovery system.

III. ANALYSIS OF THE CONDUCTORS

The apparent conductivity alone is not generally a decisive criterion in the analysis of a conductor. In particular, one should note:

- its shape and size,
- all local variations of characteristics within a conductive zone,
- any associated geophysical parameter (e.g. magnetics),
- the geological environment,
- the structural context, and
- the pattern of surrounding conductors.

The first objective of the interpretation is to classify each conductive zone according to one of the three categories which best defines its probable origin. The categories are cultural, surficial and bedrock. A second objective is to assign to each zone a priority rating as to its potential as an economic prospect.

A. Cultural Conductors

The majority of cultural anomalies occur along roads and are accompanied by a response on the power line monitor. (This monitor is set to 50 or 60 Hz, depending on the local power grid.) Power lines are the most common source of the anomalies and many are recognized immediately by virtue of phase reversals or an abnormal rate of decay. A certain number yield normal GEOTEM anomalies which could be mistaken for bedrock responses. There are also some power lines which have no GEOTEM response whatsoever.

The power line monitor, of course, is of great assistance in identifying cultural anomalies of this type. It is important to note, however, that geological conductors in the vicinity of power lines may exhibit a weak response on the monitor because of current induction via the earth.

Fences, pipelines, communication lines, railways and other man-made conductors can give rise to GEOTEM responses, the strength of which will depend on the grounding of these objects.

Another facet of this analysis is the line-to-line comparison of anomaly character along suspected man-made conductors. In general, the amplitude, the rate of decay, and the anomaly width should not vary a great deal along any one conductor, except for the change in amplitude related to terrain clearance variation. A marked departure from the average response character along any given feature gives rise to the possibility of a second conductor.

In most cases a visual examination of the site will suffice to verify the presence of a man-made conductor. If a second conductor is suspected the ground check is more difficult to accomplish. The object would be to determine if there is (i) a change in the man-made construction, (ii) a difference in the grounding conditions, (iii) a second cultural source, or (iv) if there is, indeed, a geological conductor in addition to the known man-made source.

B. Surficial Conductors

This term is used for geological conductors in the overburden, either glacial or residual in origin, and in the weathered layer of the bedrock. Most surficial conductors are probably caused by clay minerals. In some environments the presence of salts will contribute to the conductivity. Other possible electrolytic conductors are residual soils, swamps, brackish ground water and alluvium such as lake or river-bottom deposits, flood plains and estuaries.

Normally, most surficial materials have low to intermediate conductivity so they are not easily mistaken for highly conductive bedrock features. Also, many of them are wide and their anomaly shapes are typical of broad horizontal sheets.

When surficial conductivity is high it is usually still possible to distinguish between a horizontal plate (more likely to be surficial material) and a vertical body (more likely to be a bedrock source) thanks to the asymmetry of the GEOTEM responses observed at the edges of a broad conductor when flying adjacent lines in opposite directions. The configuration of the system is such that the response recorded at the leading edge is more pronounced than that registered at the trailing edge. Figure 1 illustrates the "edge effect" and the resulting conductive pattern in plan view. In practice there are many variations on this very diagnostic phenomenon.

One of the more ambiguous situations as to the true source of the response is when surface conductivity is related to bedrock lithology as for example, surface alteration of an underlying bedrock unit. At times, it is also difficult to distinguish between a weak conductor within the bedrock (e.g. near-massive sulphides) and a surficial source.

In the search for massive sulphides or other bedrock targets, surficial conductivity is generally considered as interference but there are situations where the interpretation of surficial-type conductors is the primary goal. When soils, weathered or altered products are conductive, and in-situ, the GEOTEM responses are a very useful aid to geologic mapping. Shears and faults are often identified by weak, usually narrow, anomalies.

Analysis of surficial conductivity can be used in the exploration for such features as lignite deposits, kimberlites, paleochannels and ground water. In coastal or arid areas, surficial responses may serve to define the limits of fresh, brackish and salty water.

EDGE EFFECT

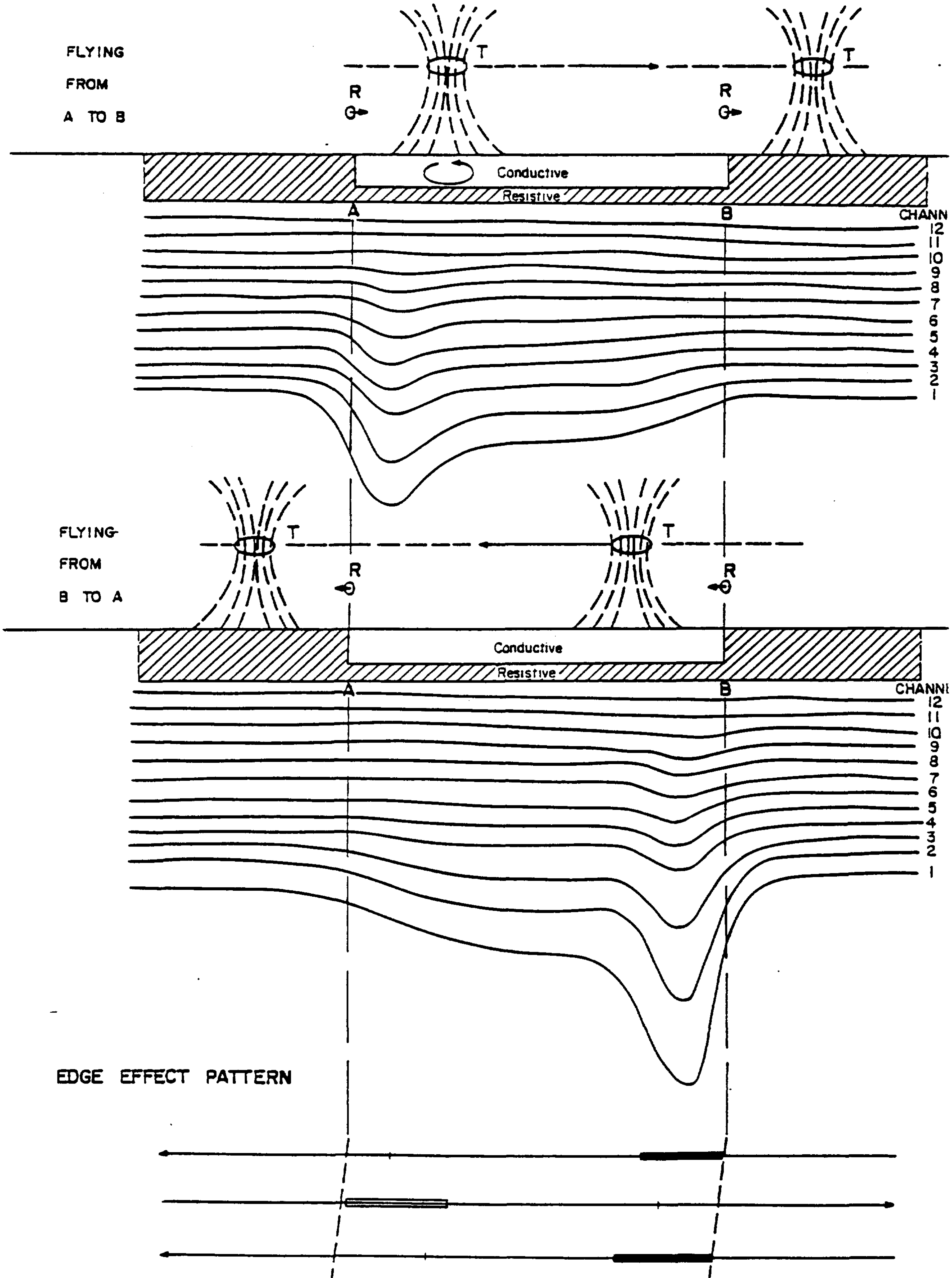


FIGURE 1

C. Bedrock Conductors

This category comprises those anomalies which cannot be classified according to the criteria established for cultural and surficial responses. It is difficult to assign a universal set of values which typify bedrock conductivity because any individual zone or anomaly might exhibit some, but not all, of these values and still be a bedrock conductor. The following criteria are considered indicative of a bedrock conductor:

1. An intermediate to high conductivity identified by a response with slow decay, with deflections most often present in the later channels.

2. The anomaly should be narrow, relatively symmetrical, with a well-defined peak.

3. There should be no serious displacement of anomaly position or change in anomaly shape (other than mirror image) with respect to flight direction, except in the case of non-vertical dipping bodies. The alternating character of the response as a result of line direction can be diagnostic of conductor geometry. Figures 2 to 6 illustrate anomalies associated with different target models.

4. A small to intermediate amplitude. Large amplitudes are normally associated with surficial conductors. The amplitude varies according to the depth of the source.

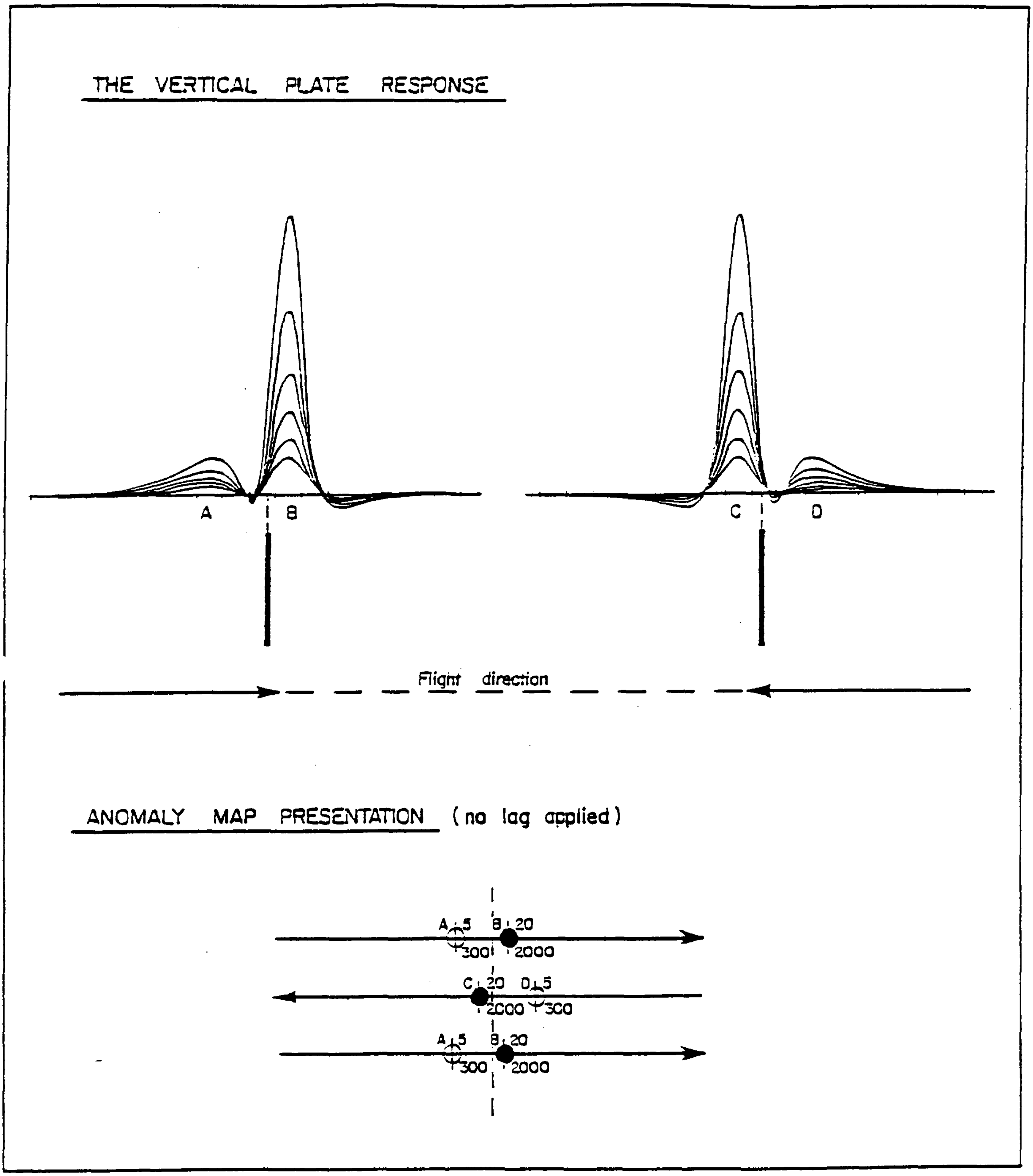
5. A degree of continuity of the EM characteristics across several lines.

6. An associated magnetic response of similar dimensions. One should note, however, that those rocks which weather to produce a conductive upper layer will possess this magnetic association. In the absence of one or more of the characteristics defined in 1, 2, 3 and 4, the related magnetic response cannot be considered significant.

Most obvious bedrock conductors occur in long, relatively monotonous, sometimes multiple zones following formational strike. Graphitic material is usually the most probable source. Massive syngenetic sulphides extending for many kilometres are known in nature but, in general, they are not common. Long formational structures associated with a strong magnetic expression may be indicative of banded iron formations.

A bedrock conductor reflecting the presence of a massive sulphide would normally exhibit the following characteristics:

- a high conductivity,
- a good anomaly shape (narrow and well-defined peak),
- a small to intermediate amplitude,
- an isolated setting,



THE VERTICAL PLATE RESPONSE
A
B
C
D
Flight direction
ANOMALY MAP PRESENTATION (no lag applied)
A 5
300
B 20
2000
C 20
2000
D 5
300
A 5
300
B 20
2000

Figure 2

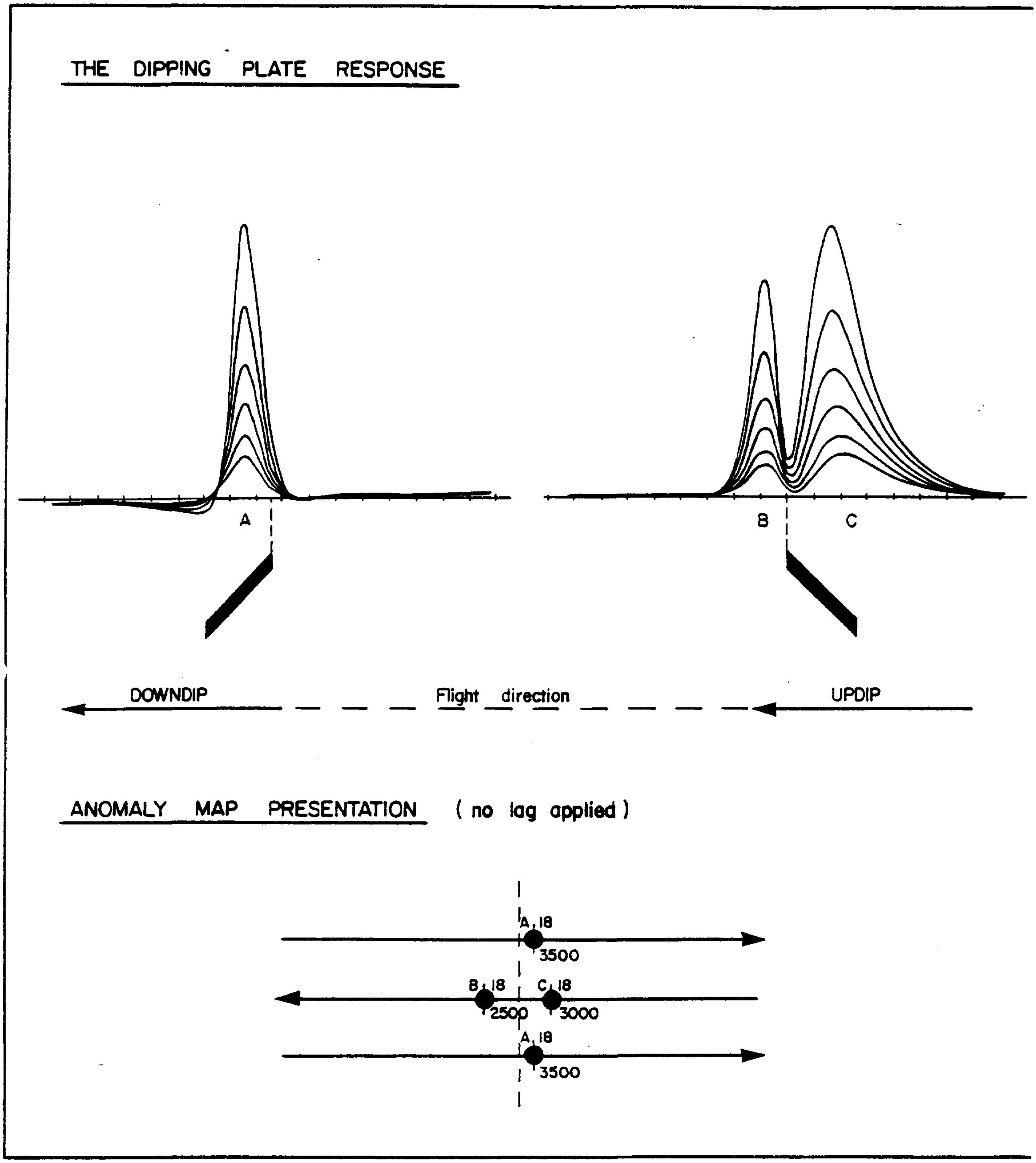

THE DIPPING PLATE RESPONSE
A
B
C
DOWNDIP
Flight direction
UPDIP
ANOMALY MAP PRESENTATION
(no lag applied)
A, 18
3500
B, 18
2500
C, 18
3000
A, 18
3500

Figure 3

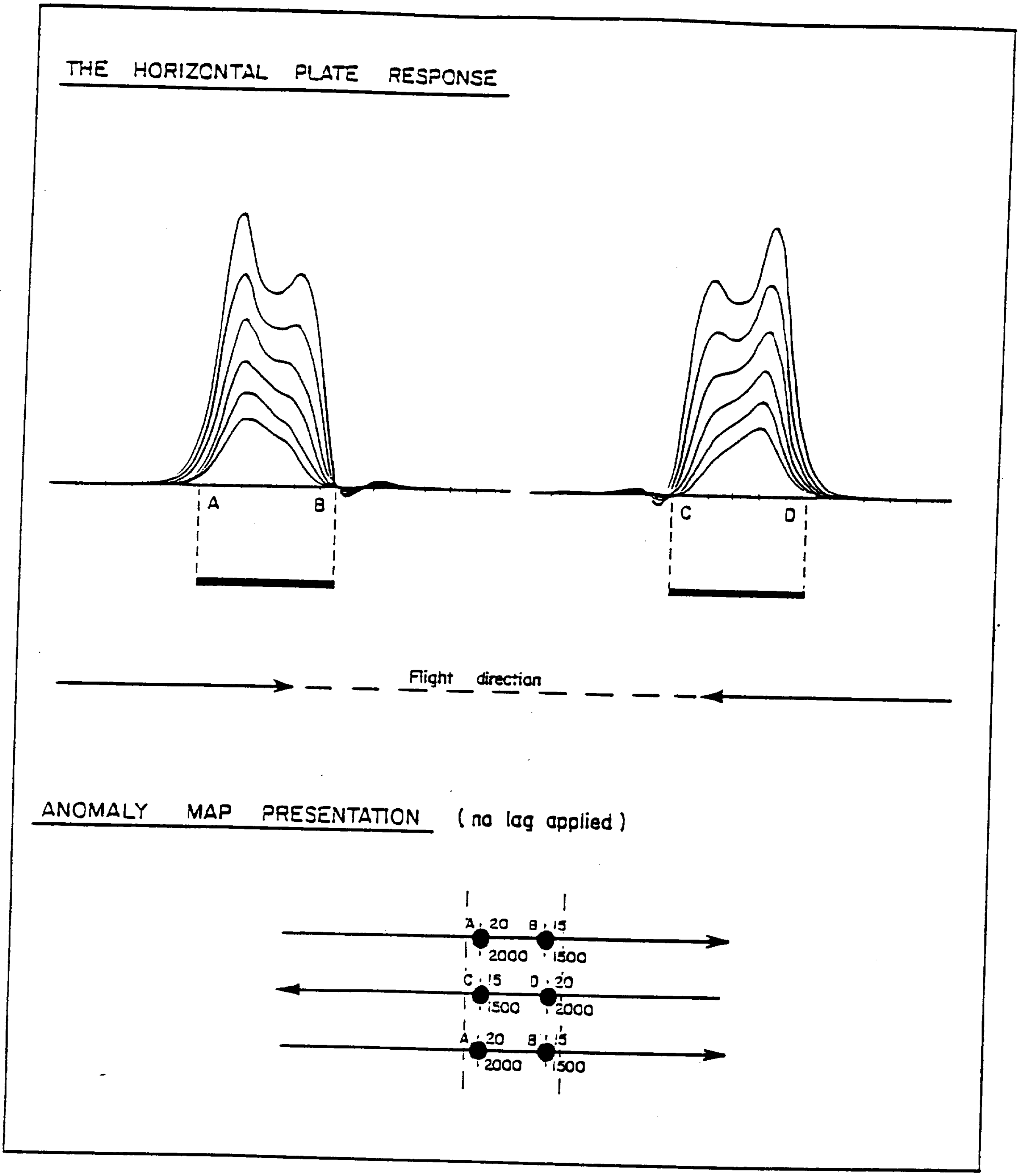
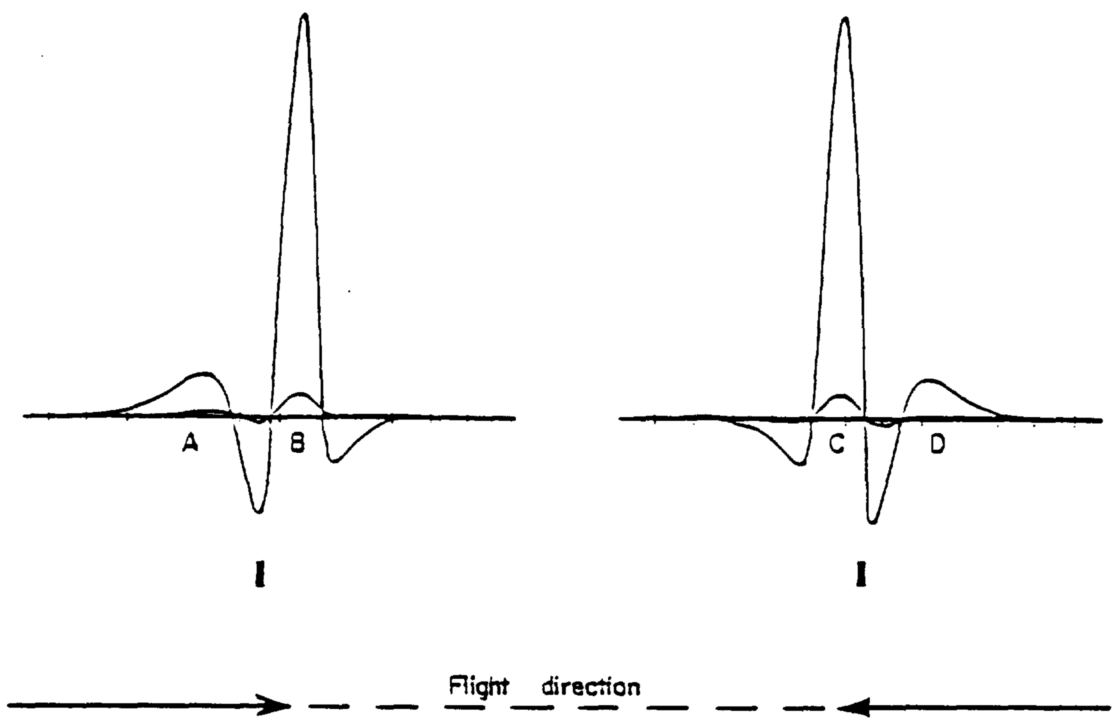

THE HORIZONTAL PLATE RESPONSE
A
B
C
D
Flight direction
ANOMALY MAP PRESENTATION (no lag applied)
A 20
2000
B 15
1500
C 15
1500
D 20
2000
A 20
2000
B 15
1500

Figure 4

THE VERTICAL RIBBON RESPONSE



ANOMALY MAP PRESENTATION (no lag applied)

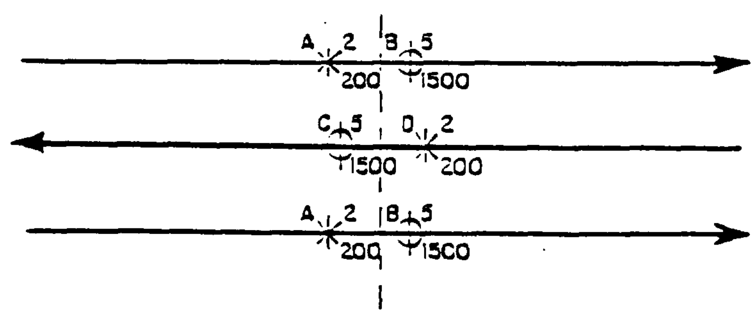


Figure 5

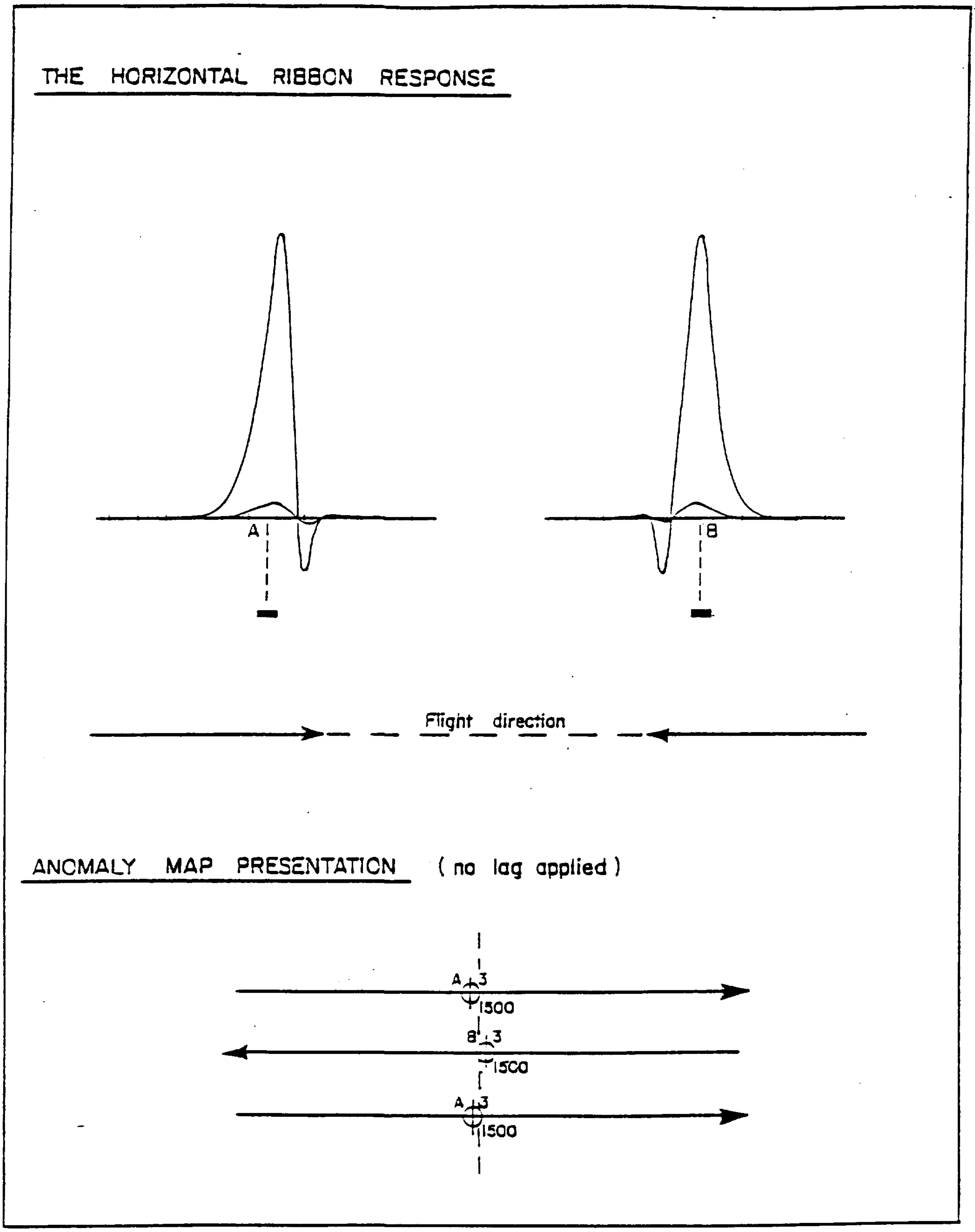

THE HORIZONTAL RIBBON RESPONSE
A
B
Flight direction
ANOMALY MAP PRESENTATION (no lag applied)
A 3
1500
B 3
1500
A 3
1500

Figure 6

- a short strike length (in general, not exceeding one kilometre), and
- preferably, with a localized magnetic anomaly of matching dimensions.

The selection of targets from within extensive (formational) belts is much more difficult than in the case of isolated conductors. Local variations in the EM characteristics, such as in the amplitude, decay, shape etc., can be used as evidence for a relatively localized occurrence. Changes in the character of the EM responses, however, may be simply reflecting differences in the conductive formations themselves rather than indicating the presence of massive sulphides and, for this reason, the degree of confidence is reduced.

Another useful guide for identifying localized variations within formational conductors is to examine the magnetic data compiled as isomagnetic contours. Further study of the magnetic data can reveal the presence of faults, contacts and other features which, in turn, help define areas of potential economic interest.

Finally, once ground investigations begin, it must be remembered that the continual comparison of ground knowledge to the airborne information is an essential step in maximizing the usefulness of the GEOTEM data.

Bristol and Godfrey Flight Lines

LINE #	METERS	Township	LINE #	METERS	Township
113	1660	Godfrey	144	5560	Godfrey
114	2100	Godfrey	145	4720	Godfrey
115	2440	Godfrey	146	3340	Godfrey
116	3580	Godfrey	147	3340	Godfrey
117	4320	Godfrey	148	3360	Godfrey
118	4680	Godfrey	149	4100	Godfrey
119	4660	Godfrey	150	3300	Godfrey
120	4800	Godfrey	151	3360	Godfrey
121	5060	Godfrey	152	3800	Godfrey
122	5060	Godfrey	153	4180	Godfrey
123	5060	Godfrey	154	4180	Godfrey
124	5060	Godfrey	155	4140	Godfrey/Bristol
125	5060	Godfrey	156	3340	Godfrey/Bristol
126	4620	Godfrey	157	3820	Godfrey/Bristol
127	4620	Godfrey	158	3820	Godfrey/Bristol
128	4620	Godfrey	159	2920	Godfrey/Bristol
129	4220	Godfrey	160	1580	Godfrey/Bristol
130	3840	Godfrey	161	1080	Bristol
131	4680	Godfrey	162	1700	Bristol
132	5060	Godfrey	163	1700	Bristol
133	5040	Godfrey	164	1700	Bristol
134	5140	Godfrey	165	1700	Bristol
135	5880	Godfrey	166	1700	Bristol
136	6280	Godfrey	167	1700	Bristol
137	6300	Godfrey	168	1700	Bristol
138	6720	Godfrey	169	1960	Bristol
139	6360	Godfrey	170	2280	Bristol
140	5860	Godfrey	171	2960	Bristol
141	5880	Godfrey	172	3360	Bristol
142	5880	Godfrey	173	3700	Bristol
143	5880	Godfrey	174	3760	Bristol
Total	**150420**		**Total**	**93860**	

TIE LINES	METERS	Township
TL5006	10,460	Godfrey/Bristol
TL5007	12,980	Godfrey/Bristol
TL5008	6,920	Godfrey
Total	**30,360**	

2.19440

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Total Kilometers **274.64 Kilometers** (274,640 meters)

Ontario Northern Development and Mines

Performed on Crown Lands

Mining Act, Subsection 66(2), R.S.O. 1990

W4460.00128
Assessment Files Research Imaging

See FINAL REVISED

P
a
d

...tion 66(2) of the Mining Act. Under section 8 of the Mining Act, this information is ...orrespond with the mining land holder. Questions about this collection should be ...e, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

42A12SE2008 2.19440 GODFREY 900

Instructions: - For work performed on mining lands, use form 0241.
- Please type or print in ink

1. Recorded holder(s) (Attach a list if necessary)

Name: Prospectors Alliance et AL	Client Number
Address: As Per List -	Telephone Number: 416-360-5333 Fax Number: 416-360-4419
Name	Client Number
Address	Telephone Number Fax Number

RECEIVED
11:30 a.m.
MAR 26 1999
GEOSCIENCE ASSESSMENT OFFICE

2. Type of work performed. Only regional surveys and prospecting work are allowed on Crown Lands before recording. For work performed after recording a claim or on other mining lands, use form 0241.

Work Type: Airbone Geophysics	**Office Use**
	Commodity
	Total $ Value of Work Claimed: $23,865
Dates Work Performed From: 12 (Day) 08 (Month) 98 (Year) To: 15 (Day) 10 (Month) 98 (Year)	NTS Reference
Global Positioning System Data (if available) / Township/Area: Bristol Godfrey -	Mining Division: Porcupine
M or G-Plan Number	Resident Geologist District: Timmins -

Please remember to: - complete and attach a Statement of Costs, form 0212;
- provide a map showing contiguous mining lands that are linked for assigning work;
- include two copies of your technical report;
- provide proper notice to surface rights holders before starting work.

3. Person or companies who prepared the technical report (Attach a list if necessary)

Name: Geoterrex - Dighem	Telephone Number: 613-731-9571
Address: 2060 Walkley Road Ottawa. K1G 3P5.	Fax Number: 613 731-0453
Name	Telephone Number
Address	Fax Number
Name	Telephone Number
Address	Fax Number

4. Certification by Recorded Holder or Agent

I, Lionel Bonhomme Agent (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent: [signature]	Date: March 23/99

Agent's Address: 169 Algonquin East Timmins Ont. P4N 1A9.	Telephone Number	Fax Number

0240 (03/97)

MAR 24 1999
4:05 PM
PORCUPINE MINING DIVISION

2.19440

FALCONBRIDGE LIMITED CLIENT # 130679
95 WELLINGTON STREET WEST
SUITE 1200
TORONTO, ONTARIO
M5J 2V4
PHONE # 416-956-5786
FAX# 416-956-5749

PROSPECTORS ALLIANCE CLIENT # 301944
8TH FLOOR
350 BAY STREET
TORONTO, ONTARIO
M5H 2S6
PHONE # 416-360-5333
FAX# 416-360-4419

CLAUDE BONHOMME CLIENT # 109770
350 BAY STREET
8TH FLOOR
TORONTO, ONTARIO
M5H 2S6
PHONE# 416-366-2098
FAX# 416-863-4943

JOHN HUOT CLIENT # 146892
36 MAPLE STREET SOUTH
TIMMINS, ONTARIO
P4N 7H9
PHONE# 705-267-6464
FAX# 705-264-3260

RALPH ALLERSTON CLIENT # 101930
543 PINE STREET NORTH
TIMMINS, ONTARIO
PHONE# 705-264-8224
FAX # 705-264-7818

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MAR 24 1999
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5. Work to be recorded and distributed. Work that is performed on Crown Lands that are subsequently staked as a mining claim, can be claimed at 100% of its value (state this amount in column "a" below). If work is performed on Crown lands and not enclosed within a subsequently recorded claim, it can be claimed at 25% of its value (state this amount in column "b" below). Work can only be assigned to claims that are contiguous to (adjoining) the lands where work was performed at the time work was performed. A map showing the contiguous link must accompany this form.

W9960.00128

	Mining Claim Number	No. of Claim Units	Value of work performed before recording a mining claim (a) Work now within a claim. Show 100% of cost	(b) Work on adjacent Crown lands. Show 25% of cost.	Value of work applied to this claim	Value of work assigned to other mining claims	Bank. Value of work to be distributed at a later date
eg	1234567	4	$4960	$725	$1600	$800	$3305
eg	1234568	2	N/A	N/A	$ 800	N/A	N/A
1	537009	1	36			36	
2	528976	1	72			72	
3	1213664	1	72			72	
4	528933	1	36			36	
5	528934	1	72			72	
6	528975	1	99			99	
7	1213660	1	72			21	51
8	1213661	1	72				72
9	1189507	1	99				99
10	537010	1	72			72	
11	528974	1	72			72	
12	~~1190066~~ 1228539	4	359				359
13	1189508	1	72			72	
14	849489	1	108			108	
15	585707	1	72			72	
	Column Totals		1385				581

I, ____________________ (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing	Date
[signature]	March 23/99

6. Instruction for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- ■ 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- ■ 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- □ 3. Credits are to be cut back equally over all claims listed in this declaration; or
- □ 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

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Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp	Deemed Approved Date	Date Notification Sent
	Date Approved	Total Value of Credit Approved
	Approved for Recording by Mining Recorder (Signature)	

0240 (03/97)

2.19440

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PORCUPINE MINING DIVISION

Ontario Ministry of Northern Development and Mines

Schedule for Declaration of Assessment Work on Mining Land

Transaction Number (office use) W9960.00128

(2)

Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.		Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date.
Foward.			1385			581
16	871593	1	72		72	
17	852866	1	72		72	
18	528973	1	72		72	
19	498972	1	72		72	
20	498971	1	72		72	
21	889672	1	108		108	
22	585703	1	72		72	
23	871597	1	72		72	
24	851900	1	72		72	
25	521783	1	72		72	
26	521782	1	108		108	1
27	1035983	1	72			72
28	610295	1	72.		72	
29	610532	1	72		72	
30	498973	1	72		72	
31	498970	1	72		72	
32	889673	1	108		108	
33	833179	1	72		72	
34	871594	1	72		72	
35	849494	1	72		72	
36	521810	1	72		72	
37	521809	1	108		108	
38	1035984	1	72			72
39	610296	1	72		72	
40	410425	1	72		72	
41	451641	1	72		72	
42	498964	1	72		72	
43	498974	1	72		72	
44	498975	1	108		108	
45	498976	1	72		72	
46	536580	1	72		72	
47	521789	1	72		72	
48	521788	1	72		72	
49	1035985	1	108			108
	Column Totals		4049.	0		833

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PORCUPINE MINING DIVISION

Ontario Ministry of Northern Development and Mines

Schedule for Declaration of Assessment Work on Mining Land

Transaction Number (office use): W9960.00128

PAGE (3)

Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.		Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land. 4049	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date. 833
50	610671	1	90		90	
51	610297	1	90		90	
52	410424	1	72		72	
53	410464	1	72		72	
54	498965	1	72		72	
55	530003	1	72		72	
56	530004	1	108		108	
57	530005	1	72		72	
58	530006	1	72		72	
59	1029712	1	72			72
60	1029713	1	72			72
61	1029714	1	108			108
62	610668	1	72		72	
63	610667	1	108		108	
64	498598	1	72		72	
65	498597	1	72		72	
66	498966	1	72		72	
67	585708	1	72		72	
68	585705	1	108		108	
69	515628	1	72		72	
70	530007	1	72		72	
71	530008	1	72		72	
72	1029716	1	72			72
73	1029715	1	99			99
74	634743	1	72		72	
75	634744	1	108		108	
76	498968	1	72		72	
77	498967	1	72		72	
78	498969	1	72		72	
79	585704	1	99		99	
80	516894	1	81		81	
81	515633	1	72		72	
82	515634	1	72		72	
83	1029717	1	72		72	
84	1029718	1	72		72	
	Column Totals		6848			1256

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Ontario Ministry of Northern Development and Mines

Schedule for Declaration of Assessment Work on Mining Land

Transaction Number (office use): W9960.00128

Page 4

	Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land. 6848	Value of work applied to this claim. 0	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date. 1256
85	634746	1	72		72	
86	634745	1	108		108	
87	515632	1	72		72	
88	515640	1	72		72	
89	515639	1	72		72	
90	515638	1	72		72	
91	516893	1	108		108	
92	515636	1	72		72	
93	515635	1	72		72	
94	1029720	1	72		72	72
95	1029719	1	72		72	72
96	634747	1	72		72	
97	515895	1	72		72	
98	515629	1	72		72	
99	28033	1	72		72	
100	515634	1	108		108	
101	949124	1	72		72	
102	949125	1	72		72	
103	889253	1	72	400	[illegible]	
104	949126	1	72		72	
105	949127	1	108		108	
106	949128	1	72		72	
107	949129	1	72		72	
108	634748	1	72		72	
109	634749	1	72		72	
110	634750	1	108		108	
111	634751	1	72		72	
112	805287	1	72		72	
113	805286	1	72		72	
114	567636	1	72		72	
115	567633	1	108		108	
116	611484	1	72		72	
117	849735	1	72	400	[illegible]	
118	889252	1	72.	400	[illegible]	
119	889251	1	72	400	[illegible]	
	Column Totals		9584	1600		1400

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Ontario Ministry of Northern Development and Mines

Schedule for Declaration of Assessment Work on Mining Land

Transaction Number (office use) W9960.00128

Page 5

	Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date.
			9584	1600		1400
120	? 996 684	1	9		9	
121	889 250	1	90	400		
122	889 249	1	90	400		
123	889 248	1	72	400		
124	889 239	1	72	400		
125	634 755	1	72	400 72 to		
126	634 754	1	72	400 72 to		
127	634 753	1	108		108	
128	634 752	1	72		72	
129	880506	1	72		72	
130	871599	1	72		72	
131	567637	1	72		72	
132	567635	1	90		90	
133	833448	1	90		90	
134	663480	1	72		72	
135	443374	1	72		72	
136	1029721	1	72		72	72
137	889247	1	72	400		
138	889244	1	108	400		
139	889 243	1	72	400		
140	889240	1	72	400		
141	634756	1	72	400 72 to		
142	634757	1	72	400. 72 to		
143	634758	1	108	400		
144	634759	1	72	400.		
145	849481	1	72		72	
146	880516	1	72		72	
147	27216	1	72		72	
148	27215	1	72		72	
149	834023	1	108		108	
150	22325	1	72		72	
151	889246	1	72	400		
152	889245	1	108	400		
153	889242	1	72	400		
154	889241	1	72	400		
	Column Totals		12293	8800		1472

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Ontario Ministry of Northern Development and Mines

Schedule for Declaration of Assessment Work on Mining Land

Transaction Number (office use) W9960.00128

PAGE 6

	Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land. 12293	Value of work applied to this claim. 8800	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date. 1472
155	634763	1	72	400		
156	634762	1	72	400		
157	634761	1	72	400		
158	634760	1	108	400		
159	833218	1	72		72	
160	27677	1	72		72	
161	19292	1	72		72	
162	19290	1	72		72	
163	833643	1	108		108	
164	22326	1	72		72	
165	1219434	4	180		[illegible]	180
166	634767	1	72	400		
167	634766	1	72	400		
168	634765	1	72	400		
169	634764	1	108	400		
170	871588	1	72		72	
171	871591	1	72		72	
172	28252	1	72		72	
173	28253	1	72		72	
174	931738	1	108		108	
175	833269	1	72		72	
176	634768	1	72		72	
177	634769	1	72		72	
178	634770	1	72		72	
179	634771	1	108		108	
180	833214	1	72		72	
181	871598	1	72		72	
182	634786	1	72		72	
183	826990	1	72		72	
184	833641	1	72		72	
185	834097	1	108		108	
186	634775	1	72		72	
187	634774	1	72		72	
188	634773	1	72		72	
189	634772	1	99		99	
	Column Totals		15264	12000		1652

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Schedule for Declaration of Assessment Work on Mining Land

Transaction Number (office use): W9960.00128

page 7

Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.		Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date.
			15 184	12000		1652
190	634784	1	81		81	
191	634785	1	72		72	
192	634787	1	72		72	
193	833642	1	72		72	
194	835702	1	72		72	
195	836903	1	108		108	
196	634776	1	72		72	
197	634777	1	72		72	
198	634778	1	72		72	
199	634779	1	72		72	
200	634791	1	108		108	
201	634790	1	72		72	
202	634789	1	72		72	
203	634788	1	72		72	
204	758055	1	72		72	
205	725451	1	108		108	
206	1029701	1	72			72
207	1029702	1	72			72
208	634781	1	72		72	
209	634780	1	72		72	
210	634792	1	108		108	
211	634793	1	72		72	
212	634794	1	72		72	
213	1029700	1	72			72
214	758053	1	72	400		
215	758731	1	81	400		
216	725905	1	99		99	
217	1029703	1	72			72
218	758951	1	72	400		
219	758952	1	72	400		
220	634782	1	72		72	
221	634783	1	72		72	
222	834579	1	108		108	
223	834578	1	72		72	
224	634795	1	72		72	
Column Totals			~~[illegible]~~ 17909	13600		1940

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Schedule for Declaration of Assessment Work on Mining Land

Transaction Number (office use) W9960.00128

Page 8

	Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date.
			17[illegible] 909	13600		1940
225	1029699	1	72			72
226	758741	1	72	400		
227	758767	1	72	400		
228	725904	1	108		108	
229	1222926	1	72			72
230	1114587	1	72			72
231	758953	1	72	400		
232	834576	1	[illegible]		81	
233	834577	1	99		99	
234	634796	1	72		72	
235	1029698	1	72			72
236	758140	1	72	400		
237	758766	1	72	400		
238	758793	1	108	400		
239	758794	1	72		72	
240	758965	1	72	400		
241	758966	1	72	400		
242	758992	1	72	400		
243	758993	1	108	400		
244	834575	1	72		72	
245	834574	1	108		108	
246	634797	1	72		72	
247	1029697	1	72			72
248	1222925	1	72			72
249	758968	1	72	400		
250	758967	1	72	400		
251	758995	1	72	400		
252	758994	1	72	400		
253	1213561	1	72		72	
254	949638	1	144		144	
255	949637	1	72		72	
256	949636	1	72		72	
257	949635	1	18		18	
258	480317	1	36		36	
259	454000	1	72		72	
	Column Totals		~~[illegible]~~ 20591	19200		2372

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Ontario Ministry of Northern Development and Mines

Schedule for Declaration of Assessment Work on Mining Land

Transaction Number (office use) W9960.00128

page 9

	Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land. 20391	Value of work applied to this claim. 19200	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date. 2372
260	479 503	1	108		108	
261	1207 716	1	108			108
262	1218645	1	72			72
263	413 232	1	72		72	
264	413 423	1	72		72	
265	413 424	1	108		108	
266	413425	1	72		72	
267	451 533	1	72		72	
268	453 999	1	18		18	
269	451541	1	72		72	
270	1201315	1	108			108
271	525965	1	36		36	
272	363448	1	72		72	
273	363445	1	72		72	
274	1190579	4	180			180
275	921757	1	36		36	
276	451542	1	27		27	
277	451543	1	36		36	
278	451547	1	36		36	
279	1218877	8	670.			670
280	1203999	16	1243.			1243
		Column Totals	23881.	19200		4681

0290 (02/96)

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Ontario Ministry of Northern Development and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use) W9960.00128

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Work Type	Units of Work Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cost
Airborne	266 Km	70.61	18 782.26
J. Ataway. Consulting Geologist	10 DAYS @ 500 DAY.	÷ 973 Km × 266 Km.	1367.24
R. Calhoon - Geologist	Target Follow up 5 Days @ 300 DAY		410.07
Del Drafting			392.50
Associated Costs (e.g. supplies, mobilization and demobilization).			
Mobilization		5000 5.14	1367.24
Transportation Costs			
Food and Lodging Costs			
		Sub Total	22319.80
		GST	1562
		Total Value of Assessment Work	23,881

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Calculations of Filing Discounts:

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK × 0.50 = Total $ value of worked claimed.

Note:
- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

2.19440

Certification verifying costs:

I, Lionel Bahamis (please print full name), do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as Agent (recorded holder, agent, or state company position with signing authority) I am authorized to make this certification.

MAR 24 1999 PORCUPINE MINING DIVISION

Signature [signature] Date Mar 23/99

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Ontario

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

Telephone: (888) 415-9846
Fax: (877) 670-1555

Visit our website at:
www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

August 12, 1999

FALCONBRIDGE LIMITED
SUITE 1200, 95 WELLINGTON STREET WEST
TORONTO, ONTARIO
M5J-2V4

Dear Sir or Madam:

Submission Number: 2.19440

		Status
Subject: Transaction Number(s):	W9960.00128	Approval After Notice

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact Bruce Gates by e-mail at bruce.gates@ndm.gov.on.ca or by telephone at (705) 670-5856.

Yours sincerely,

ORIGINAL SIGNED BY
Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Correspondence ID: 14059
Copy for: Assessment Library

Work Report Assessment Results

Submission Number: 2.19440

Date Correspondence Sent: August 12, 1999 **Assessor:** Bruce Gates

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9960.00128	537009	BRISTOL	Approval After Notice	August 06, 1999

Section:
15 Airborne Geophy AMAG
15 Airborne Geophy AEM

The revisions outlined in the Notice dated June 22, 1999, have been corrected. Accordingly, assessment work credit has been approved as outlined on the Declaration of Assessment Work Form accompanying this submission.

Correspondence to:

Resident Geologist
South Porcupine, ON

Assessment Files Library
Sudbury, ON

Recorded Holder(s) and/or Agent(s):

Lionel Bonhomme
TIMMINS, ONTARIO, CANADA

FALCONBRIDGE LIMITED
TORONTO, ONTARIO

PROSPECTORS ALLIANCE LIMITED
TORONTO, ONTARIO

JEAN-CLAUDE BONHOMME
TORONTO, ONTARIO

WAYNE NELSON PEARSON
TIMMINS, Ontario

RALPH E. ALLERSTON
TIMMINS, ONTARIO

Correspondence ID: 14059

MAP SYMBOLOGY

Aerial Cableway, Boundary, International, Interprovincial, District, Township, Indian Reserve, Approximate, Lot, Concession, Approximate, Park Boundary, Bridge, Building, Chimney, Cliff, Pit, Pile, Contours, Interpolated, Approximate, Depression, Control Points, Horizontal, Vertical, Culvert, Falls, Fence, Hedge, Wall, Feature Outline, Flooded Land, Lock, Marsh or Swamp, Mast, Mine Head Frame, Outcrop

Pipeline (above ground), Railroad, Single Track, Double Track, Abandoned, Turntable, Road, Highway, County, Township, Access road, Trail, Bush Road (portage etc), Rapids, Reservoir, River, Stream, Canal, Rock, Shoal, Spot Elevation, Transmission Line, Tower, Poles, Pylons, Tunnel, Utility Poles, Wharf, Dock, Pier, Wooded Area

land use permit

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
M.+ S. – MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File

(R1) – S.R.O. UNDER APPLICATION FOR AGRICULTURAL PURPOSES

(R2) – CERTIFIED AGRICULTURAL LAND – 26/8/82 SUBJECT TO SEC. 41(1) OF THE MINING ACT.

(R3) – BONA FIDE APPLICATION

Pending S.R. disposition under P.L.A.

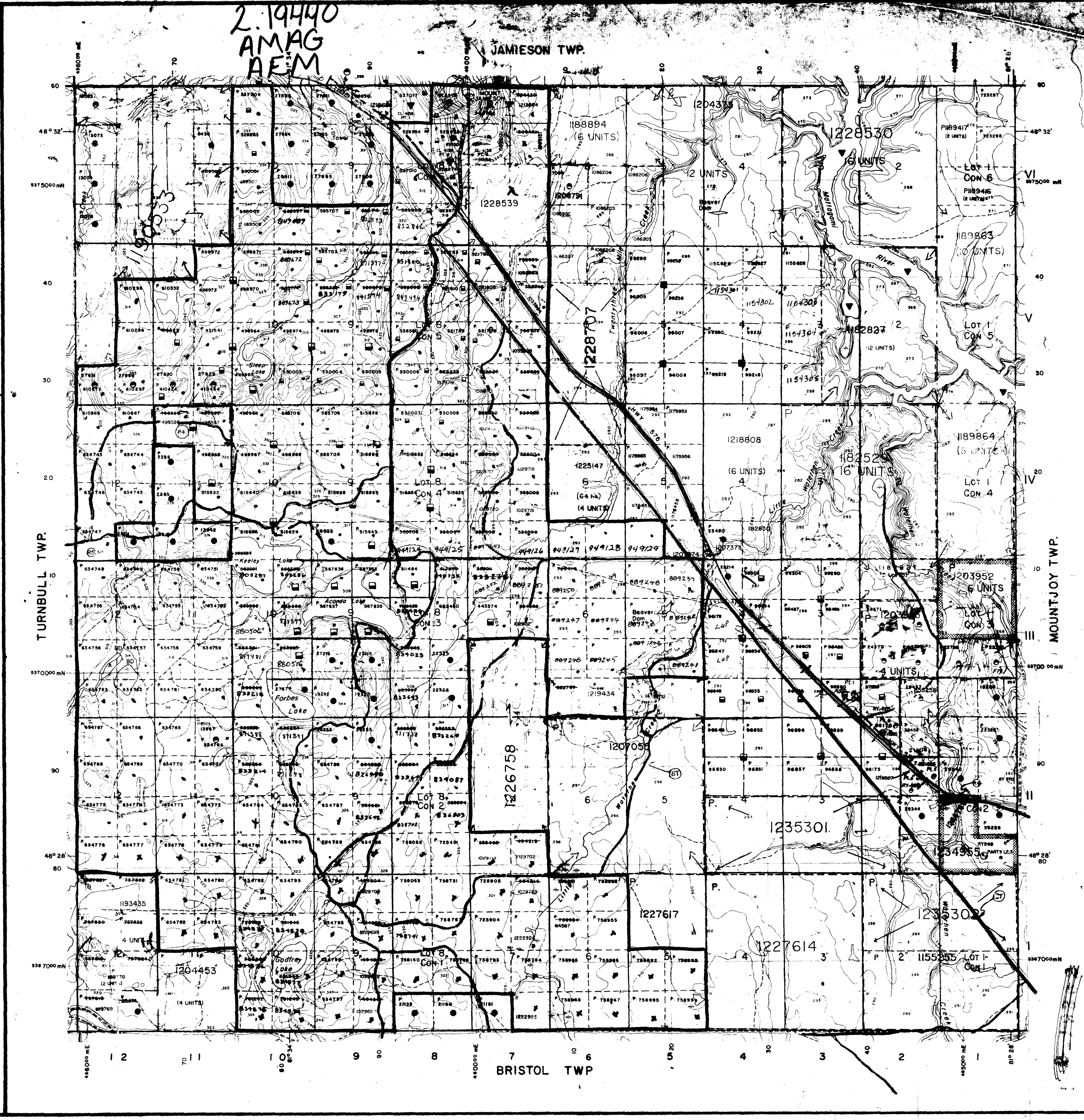
(Fi) FILED ONLY AUG 15/85 - 835628

MINING AND SURFACE RIGHTS REOPENED TO PROSPECTING, STAKING OUT, SALE AND LEASE UNDER SECTION 36 OF THE MINING ACT RSO 1980 EFFECTIVE 91AUG09 AT 11.00 AM EST ORDER NO OP 04/91 NR DATED 91AUG09

(R4) PENDING APPLICATION UNDER THE PUBLIC LANDS ACT NOTICE REC'D 91-NOV-22 SEE LAND ROLL FILE FOR DETAILS

(R5) MINING AND SURFACE RIGHTS REOPENED FOR PROSPECTING, STAKING OUT, SALE OR LEASE UNDER SECTION 36 OF THE MINING ACT RSO 1980 EFFECTIVE FEB. 1, 1988, AT 7.00 a.m. E.S.T. ORDER NO. O-P-1/88 NER DATED JAN. 18/88. (P-634747)

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.



SUBDIVISION OR COMPOSITE PLAN
RESERVATIONS
ORIGINAL SHORELINE
MARSH OR MUSKEG
MINES
TRAVERSE MONUMENT

UNSURVEYED LINES: LOT LINES, PARCEL BOUNDARY, MINING CLAIMS ETC. RAILWAY AND RIGHT OF WAY, UTILITY LINES, NON-PERENNIAL STREAM, FLOODING OR FLOODING RIGHTS

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	▼
ORDER-IN-COUNCIL	OC
RESERVATION	Ⓡ
CANCELLED	⊗
SAND & GRAVEL	Ⓢ

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1

Metres 500 0 1000 Metres
Chains 10 0 10 20 30 40 50 60 70 Chains
Feet 500 0 1000 2000 3000 4000 5000 Feet

SCALE 1:20 000
GRID ZONE : 17

NOTES

FLOODING RIGHTS ON EITHER SIDE OF THE MATTAGAMI RIVER TO H.E.P.C.

LICENCE OF OCCUPATION LOCATED WITHIN LOTS 7 & 8, CONCESSION 6, BEING PARTS 1, 2, AND 3 ON A PLAN OF LOCATION CL 4135, ISSUED JUNE 11 1985 FOR SURFACE RIGHTS ONLY TO KAMISKOTIA RESORTS LIMITED. LICENCE DOCUMENT AND PLAN OF SURVEY AVAILABLE IN LAND ROLL FILE.

DATE OF ISSUE APR 16 1999 PROVINCIAL RECORDING OFFICE - SUDBURY

(ST) – PROPOSED SNOWMOBILE TRAIL NOTICE REC'D 93-MAY-20

DATE OF ISSUE APR 15 1999 PROVINCIAL RECORDING OFFICE - SUDBURY

TOWNSHIP

GODFREY

M.N.R. ADMINISTRATIVE DISTRICT

TIMMINS

MINING DIVISION

PORCUPINE

LAND TITLES / REGISTRY DIVISION

COCHRANE

Ontario — Ministry of Natural Resources — Land Management Branch

ORIGINAL COMPILATION	JULY 1984	Number
REVISED		G-3991

42A12SE2008 2.19440 GODFREY 200

MAP SYMBOLOGY

Aerial Cableway · Boundary · International · Interprovincial · District, Township, Indian Reserve · Provincial · Lot, Concession · Approximate · Park Boundary · Bridge · Building · Chimney · Cliff, Pit, Pile · Contours · Interpolated · Approximate · Depression · Control Points · Horizontal · Vertical · Culvert · Falls · Fence, Hedge, Wall · Feature Outline · Flooded Land · Lock · Marsh or Swamp · Moat · Mine Head Frame · Outcrop

Pipeline · Railroad · Single Track · Double Track · Abandoned · Turntable · Road · Rapids · Reservoir · River, Stream, Canal · Approximate · Flow · Spot Elevation · Tower · Transmission Line · Tunnel · Utility Poles · Wharf, Dock, Pier · Wooded Area

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. — MINING RIGHTS ONLY
S.R.O. — SURFACE RIGHTS ONLY
M.+ S. — MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File
			S.R.O.	164584

~~MINING AND SURFACE RIGHTS WITHDRAWN FROM PROSPECTING, STAKING, SALE OR LEASE, SECTION 35 OF THE MINING ACT RSO 1980 ORDER NO. W-93/46 WR DATED 06-OCT-90.~~

MINING AND SURFACE RIGHTS RE-OPENED TO PROSPECTING, STAKING OUT, SALE OR LEASE UNDER SECTION 35 OF THE MINING ACT R.S.O. 1990 ORDER NO. O-P-22/92 NER DATED 92-AUG-01 (CLAIM NO.'S P-451541 TO P-451548 INCL., P-453999, P-454000, P-479503 TO P-479506 INCL. AND P-480315 TO P-480317 INCL.)

~~MINING AND SURFACE RIGHTS WITHDRAWN FROM PROSPECTING, STAKING, SALE OR LEASE, SECTION 35 OF THE MINING ACT, RSO 1980 ORDER NO. W-50/96 DATED 96-MAY-8.~~

~~THIS TWP. SUBJECT TO FOREST ACTIVITY IN 1992/93. FURTHER INFORMATION AVAILABLE AT C.E.C.~~

MINING AND SURFACE RIGHTS RE-OPENED TO PROSPECTING, STAKING OUT, SALE OR LEASE UNDER SECTION 35 OF THE MINING ACT, R.S.O. 1990. ORDER NO. O-P 24/92 NER DATED 92-SEP-10 AT 7:00 A.M. E.S.T. (CLAIM NO.S P-528889 TO P-528878 INCL. AND P-528308 TO P-528312 INCL.)

MINING AND SURFACE RIGHTS RE-OPENED TO PROSPECTING, STAKING OUT, SALE OR LEASE UNDER SECTION 35 OF THE MINING ACT, R.S.O. 1990. ORDER NO. O-P 25/92 NER DATED 92-NOV-02 AT 7:00 A.M. E.S.T. (CLAIM NO.S P-480311 TO P-480313 INCL.)

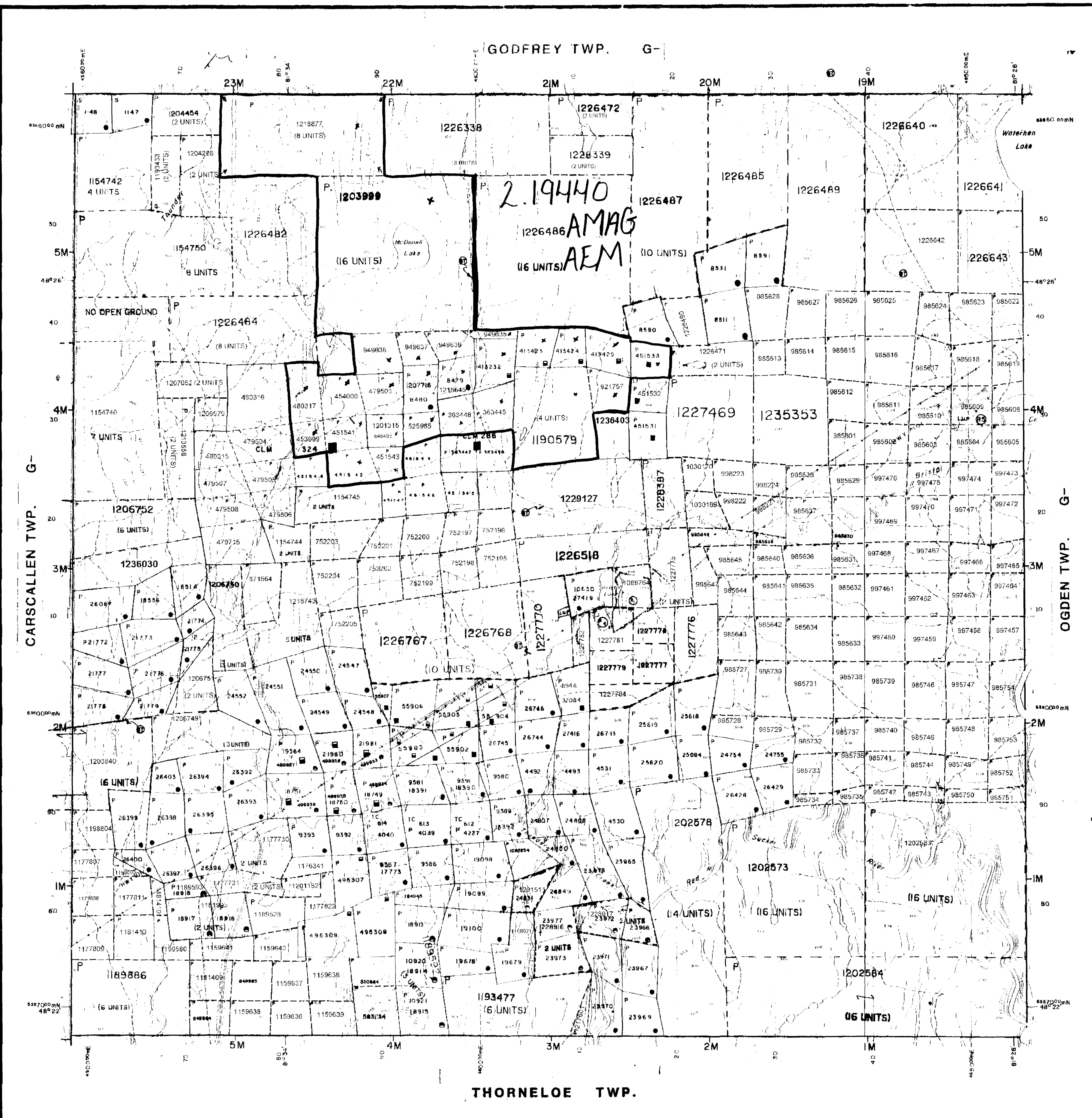
MINING AND SURFACE RIGHTS RE-OPENED TO PROSPECTING, STAKING OUT, SALE OR LEASE UNDER SECTION 35 OF THE MINING ACT R.S.O. 1990 ORDER NO. O-P 30/88 NER DATED 88-NOV-08 AT 7:00 A.M. E.S.T. (CLAIM NO.S P-480306 TO P-480310 INCL. AND P-480316)

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.

KEY PLAN
For O.B.M. Map

20 17 4500 53500	20 17 4800 53600
20 17 4500 53600	20 17 4800 53800

not to scale



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 OR COMPOSITE PLAN
RESERVATIONS
ORIGINAL SHORELINE
MARSH OR MUSKEG
MINES
TRAVERSE MONUMENT

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	
ORDER IN COUNCIL	OC
RESERVATION	
CANCELLED	
SAND & GRAVEL	
LAND USE PERMIT	L.U.P.

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSECT. 1

SCALE 1:20 000
ZONE 17

APPLICATION PENDING UNDER THE PUBLIC LANDS ACT NOTICE RECEIVED 89-DEC-8. SNOWMOBILE TRAILS

APPLICATION FOR CROWN LAND UNDER THE PUBLIC LANDS ACT NOTICE RECEIVED 89-MAY-4 ORE EXCAVATION TOP SOIL HOLDING STORAGE ETC.

SUBJECT TO LAND USE PERMIT #MTG 40097 March 26/98

THIS TWP SUBJECT TO FOREST ACTIVITY IN 1995/96. AREAS DESIGNATED EXACTLY AS SUBMITTED BY MNR TIMMINS.

TOWNSHIP
BRISTOL

M.N.R. ADMINISTRATIVE DISTRICT
TIMMINS

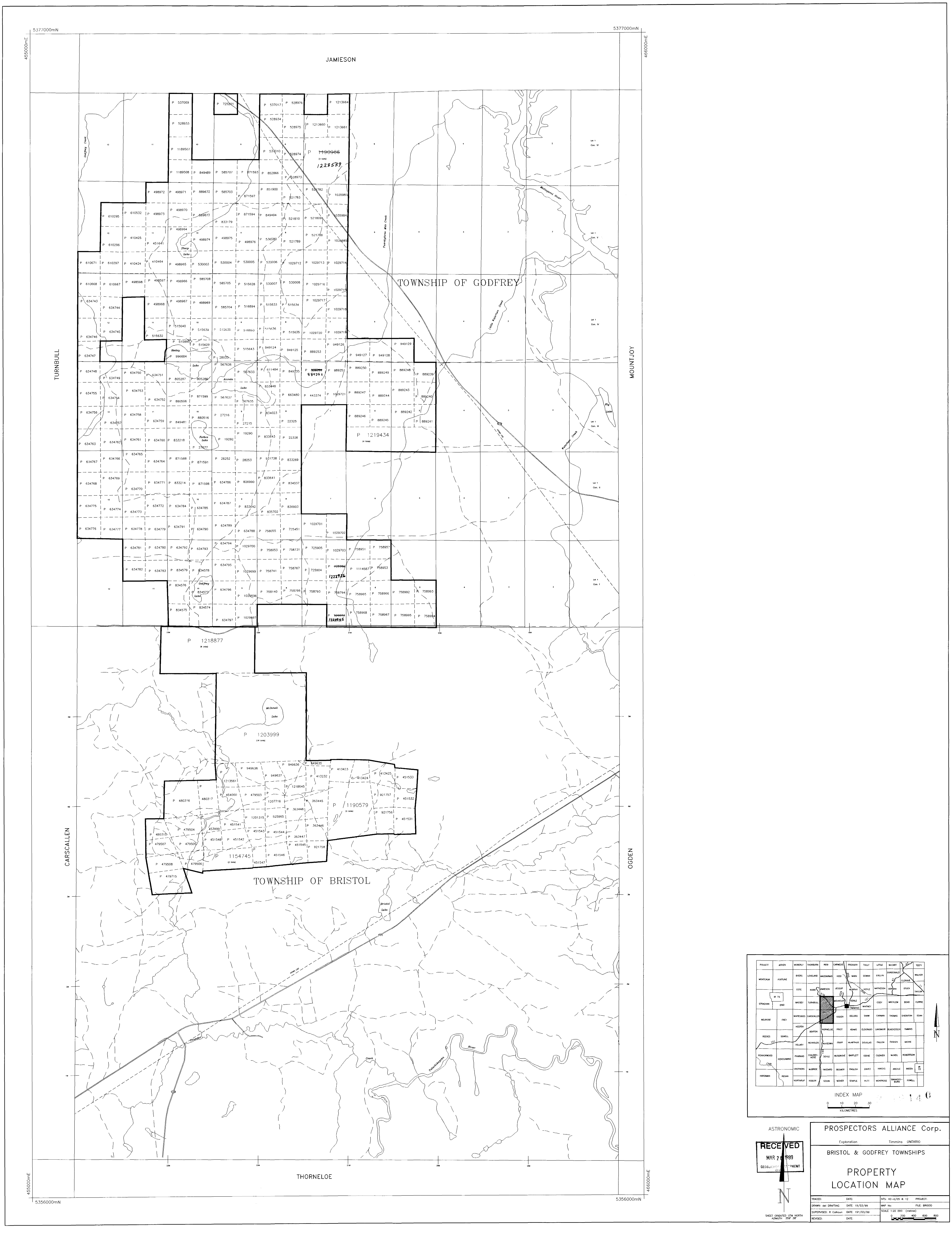
MINING DIVISION
PORCUPINE

LAND TITLES / REGISTRY DIVISION
COCHRANE

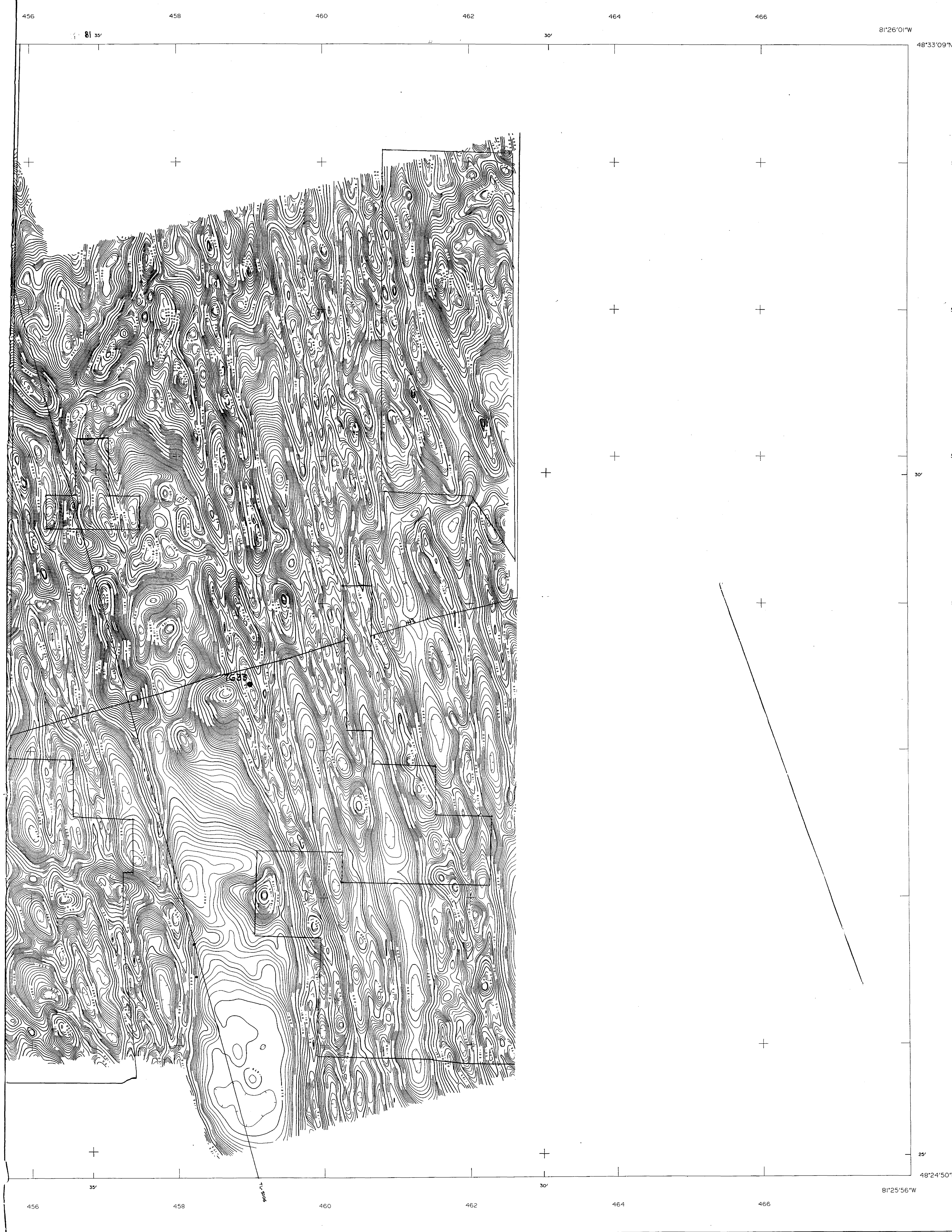
Ministry of Natural Resources — Land Management Branch
Ontario

ORIGINAL COMPILATION JULY 1984
ACTIVATED JULY 13, 1992 BY D.C.
REVISED
CHECKED BY G.W.

Number
G-3998



5377000mN
455000mE
466000mE
JAMIESON
TOWNSHIP OF GODFREY
TURNBULL
MOUNTJOY
P 1218877
P 1203999
P 1190579
P 1154745
TOWNSHIP OF BRISTOL
CARSCALLEN
OGDEN
THORNELOE
5356000mN
INDEX MAP
KILOMETRES
ASTRONOMIC
RECEIVED
MAR 2 6 1999
N
SHEET ORIENTED UTM NORTH
AZIMUTH 359° 38'
PROSPECTORS ALLIANCE Corp.
Exploration
Timmins ONTARIO
BRISTOL & GODFREY TOWNSHIPS
PROPERTY
LOCATION MAP
TRACED:
DATE:
DRAWN: del DRAFTING
DATE: 19/03/99
SUPERVISED: R Calhoun
DATE: 19/03/99
REVISED:
DATE:
NTS: 42-A/05 & 12
PROJECT:
MAP No:
FILE: BRIGOD
SCALE 1:20 000 (metres)



LEGEND

100 nT
25 nT
5 nT

MAGNETIC INTENSITY LOW

CONTOUR INTERVAL 5 nT

SURVEY PARAMETERS:

LINE SPACING..................200 M
LINE DIRECTION................E-W
TIE-LINE SPACING..............2000 M
TIE-LINE DIRECTION............N-S
FLYING ELEVATION..............120 M MEAN TERRAIN CLEARANCE
AVERAGE AIRCRAFT SPEED........62 M/SEC

NAVIGATION....................DIFFERENTIAL GPS
GPS RECEIVER..................SERCEL NR 103, 10 CHANNELS
VIDEO CAMERA..................HITACHI VK-C370

MAGNETICS:

MAGNETOMETER..................SCINTREX CS-2 CESIUM VAPOUR
INSTALLATION..................TOWED BIRD
SYSTEM SENSITIVITY ....0.01 nT
SAMPLING......................10 HZ

CORRECTION FOR I.G.R.F. FIELD:
DATE..........................1998.65
HEIGHT........................BASED ON TRUE DEVATION PROVIDED BY THE GPS

ELECTROMAGNETICS:

TYPE..........................GEOTEM III, MULTICOIL, 20 CHANNELS
INSTALLATION..................TRANSMITTER LOOP MOUNTED ON THE AIRCRAFT
RECEIVER COILS IN A TOWED BIRD
COIL ORIENTATION..............X, Y AND Z
FREQUENCY.....................90 HZ
PULSE WIDTH...................2 MSEC
GEOMETRY......................Tx-Rx HORIZONTAL SEPARATION OF 125m
Tx-Rx VERTICAL SEPARATION OF 50m
SAMPLING......................4 HZ

GEODETIC INFORMATION:

MAP PROJECTION................UTM
SPHEROID......................CLARKE 1886
CENTRAL MERIDIAN..............81 DEGREES WEST
FALSE EASTING.................500000 METRES
FALSE NORTHING................0 METRES
SCALE FACTOR..................0.99960

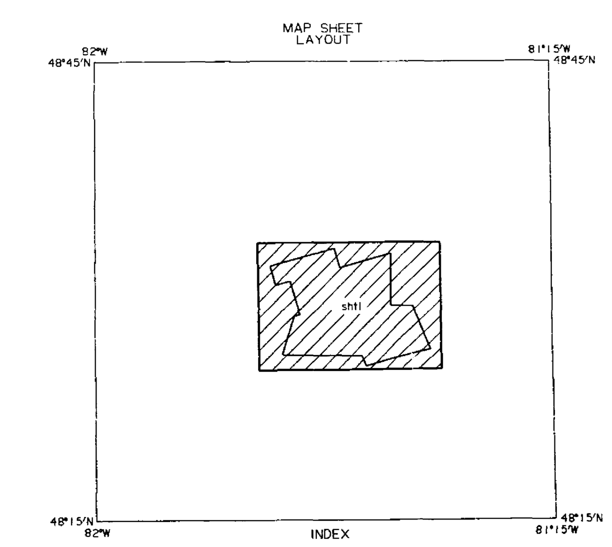
N

SCALE 1:20000

500 0 500 1000 1500 2000 Metres

2000 0 2000 4000 6000 8000 Feet

MAP SHEET LAYOUT



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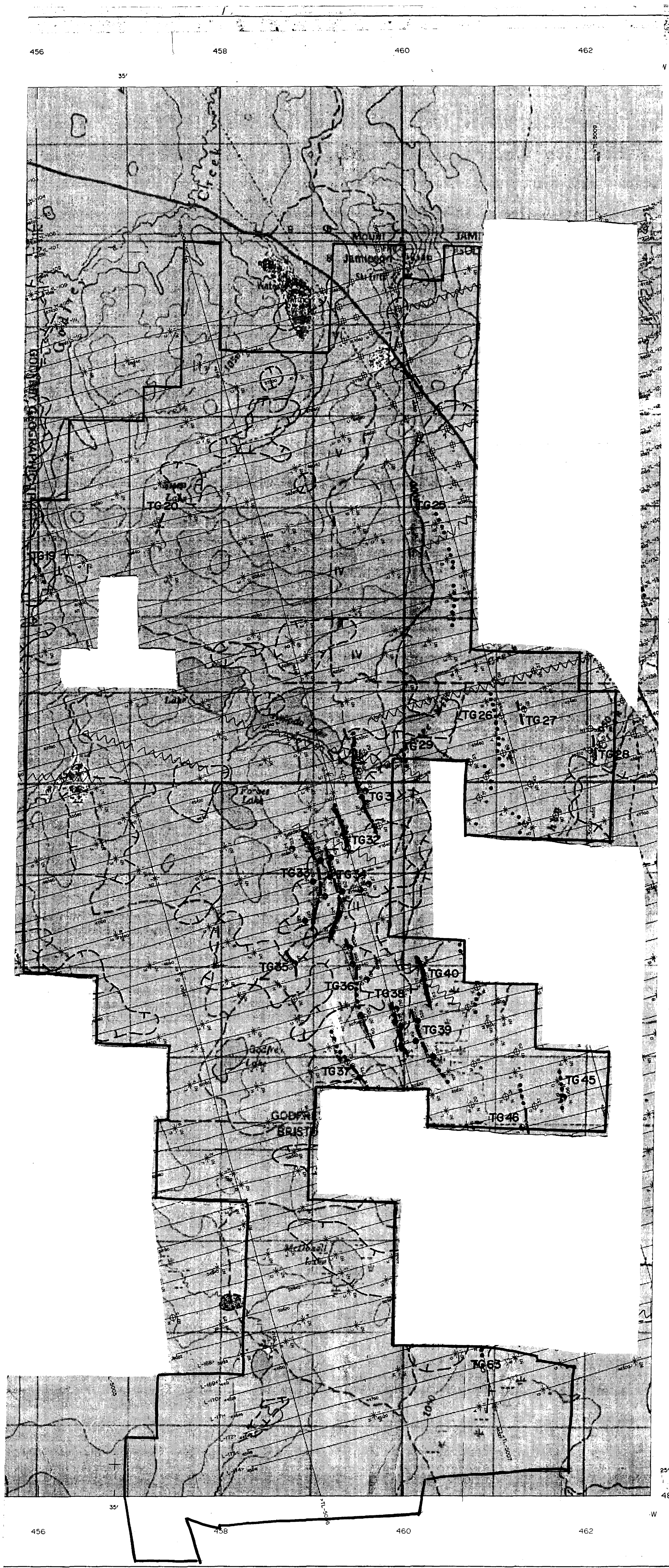
SURVEYED, COMPILED BY geoterrex	FOR PROSPECTORS ALLIANCE CORPORATION
AIRBORNE GEOTEM/MAGNETIC SURVEY	
TIMMINS ONTARIO	TOTAL MAGNETIC INTENSITY CONTOUR MAP (I.G.R.F. REMOVED)
SHEET 1 OF 1 / SCALE 1: 20000	SURVEY ALTITUDE 120 M / DATE: AUGUST 1998
POSITIONAL CONTROL ...... BASED ON DIFFERENTIALLY CORRECTED GPS	tf001.mrg / GEOTERREX PROJECT NO. 501



SURVEY PARAMETERS:

LINE SPACING.................200 M
LINE DIRECTION...............E-W
TIE-LINE SPACING.............2000 M
TIE-LINE DIRECTION...........N-S
FLYING ELEVATION.............120 M MEAN TERRAIN CLEARANCE
AVERAGE AIRCRAFT SPEED.......62 M/SEC

NAVIGATION...................DIFFERENTIAL GPS
GPS RECEIVER.................SERCEL NR 103, 10 CHANNELS
VIDEO CAMERA.................HITACHI VK-C370

MAGNETICS:

MAGNETOMETER.................SCINTREX CS-2 CESIUM VAPOUR
INSTALLATION.................TOWED BIRD
SYSTEM SENSITIVITY...........0.01 nT
SAMPLING.....................10 HZ

CORRECTION FOR I.G.R.F. FIELD:
DATE.........................1998.65
HEIGHT.......................BASED ON TRUE DEVATION PROVIDED BY THE GPS

ELECTROMAGNETICS:

TYPE.........................GEOTEM III, MULTICOIL, 20 CHANNELS
INSTALLATION.................TRANSMITTER LOOP MOUNTED ON THE AIRCRAFT
RECEIVER COILS IN A TOWED BIRD
COIL ORIENTATION.............X, Y AND Z
FREQUENCY....................90 HZ
PULSE WIDTH..................2 MSEC
GEOMETRY.....................Tx-Rx HORIZONTAL SEPARATION OF 125m
Tx-Rx VERTICAL SEPARATION OF 50m
SAMPLING.....................4 HZ

GEODETIC INFORMATION:

MAP PROJECTION...............UTM
SPHEROID.....................CLARKE 1866
CENTRAL MERIDIAN.............81 DEGREES WEST
FALSE EASTING................500000 METRES
FALSE NORTHING...............0 METRES
SCALE FACTOR.................0.99960

GEOTEM® Peak Response Symbols

ANOMALY	DECAY INTERVAL CLASSIFICATION
	1-2 Channels
	3-4 Channels
	5-6 Channels
	7-8 Channels
	9-10 Channels
	11-12 Channels

Anomaly Letter
Apparent Conductance (siemens)
Interpreted as a possible Overburden Response
CH 10 AMPLITUDE (p
Type of Source not clear

Culture Response
Anomaly Letter

Interpretation Legend

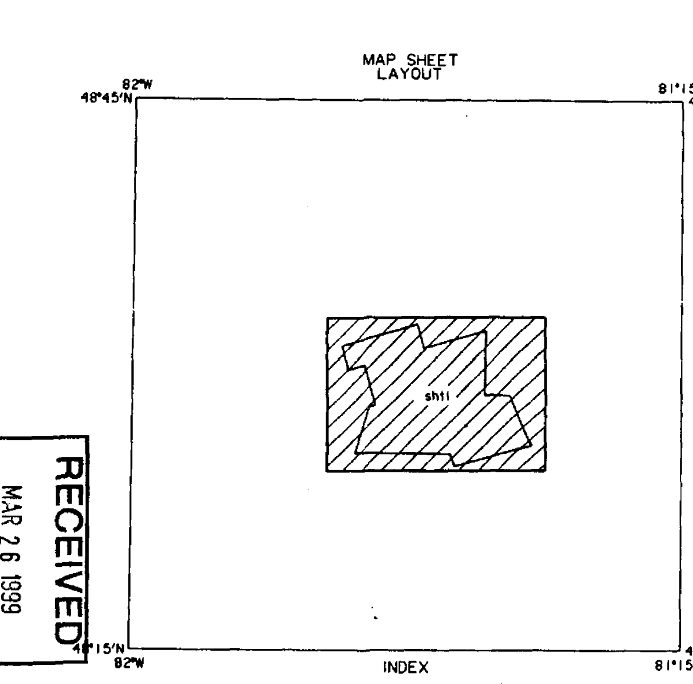
TG8 Zone number
Conductive area
Conductor axis, dip
Fault zone

SCALE 1:20000

500 0 500 1000 1500 2000 Metres

2000 0 2000 4000 6000 8000 Feet

MAP SHEET LAYOUT



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SURVEYED, COMPILED BY geoterrex

FOR PROSPECTORS ALLIANCE CORPORATION

AIRBORNE GEOTEM/MAGNETIC SURVEY

TIMMINS ONTARIO

2.19440

EM ANOMALIES FROM X-COIL CHANNELS ON TOPOGRAPHIC BASEMAP

SHEET 1 OF 1	POSITIONAL CONTROL ...... BASED ON	SURVEY ALTITUDE 120 M	a001.mrg
SCALE 1: 20000	DIFFERENTIALLY CORRECTED GPS	DATE: AUGUST 1998	GEOTERREX PROJECT NO. 501