REPORT ON
COMBINED HELICOPTER-BORNE
MAGNETIC, ELECTROMAGNETIC,
AND VLF-EM SURVEY
ON
BRECKENRIDGE CLAIMS

for

TUNDRA GOLD MINES LTD.

by

AERODAT LIMITED

June, 1983

TABLE OF

LIST OF MAPS

(Scale: 1/15,840)

Data provided but not included in report:

1 - master map (2 colour) of coaxial and coplanar profiles with flight path

2 - anomaly list providing estimates of depth and conductivity thickness

3 - analogue records of data obtained in flight

1. INTRODUCTION

This report describes an airborne geophysical survey carried out on behalf of Tundra Gold Mines Limited by Aerodat Limited. Equipment operated included a 3 frequency electromagnetic system, a VLF-EM system, and a magnetometer.

The survey was flown on March 26 to 29, 1983 from an operations base at Wawa Ontario. A total of 541 line miles were flown, at a nominal line spacing of 660 feet. Of the total flown, this report describes 55.75 line miles.

2. SURVEY AREA/CLAIM NUMBERS AND LOCATIONS

The mining claim numbers and locations covered by this survey are indicated on the map in the following pocket.

3. AIRCRAFT EQUIPMENT

3.1 Aircraft

The helicopter used for the survey was an Aerospatial Astar 350D owned and operated by North Star Helicopters. Installation of the geophysical and ancillary equipment was carried out by Aerodat. The survey aircraft was flown at a nominal altitude at 60 meters.

3.2 Equipment

3.2.1 Electromagnetic System

The electromagnetic system was an Aerodat/ Geonics 3 frequency system. Two vertical coaxial coil pairs were operated at 955 and 4130 Hz and a horizontal coplanar coil pair at 4500 Hz. The transmitter-receiver separation was 7 meters. In-phase and quadrature signals were measured simultaneously for the 3 frequencies with a time-constant of 0.1 seconds. The electromagnetic bird was towed 30 meters below the helicopter.

3.2.2 VLF-EM System

The VLF-EM System was a Herz 2A. This instrument measures the total field and vertical quadrature component of two selected frequencies. The sensor was towed in a bird 15 meters below the helicopter.

The sensor aligned with the flight direction is designated as "LINE", and the sensor perpendicular to the line direction as "ORTHO". The "LINE" station used was NAA, Cutler Maine, 17.8 KHz or NLK, Jim Creek Washington, 24.8 KHz. The "ORTHO" station was NSS, Annapolis Maryland, 21.4 KHz. The NSS transmitter was operating on a very limited schedule and was not available during a large part of the survey.

3.2.3 Magnetometer

The magnetometer was a Geometrics G-803 proton precession type. The sensitivity of the instrument was 1 gamma at a 1.0 second sample rate. The sensor was towed in a bird 15 meters below the helicopter.

3.2.4 Magnetic Base Station

An IFG proton precession type magnetometer was operated at the base of operations to record diurnal variations of the earths magnetic field. The clock of the base station was synchronized with that of the airborne system to facilitate later correlation.

3.2.5 Radar Altimeter

A Hoffman HRA-100 radar altimeter was used to record terrain clearance. The output from the instrument is a linear function of altitude for maximum accuracy.

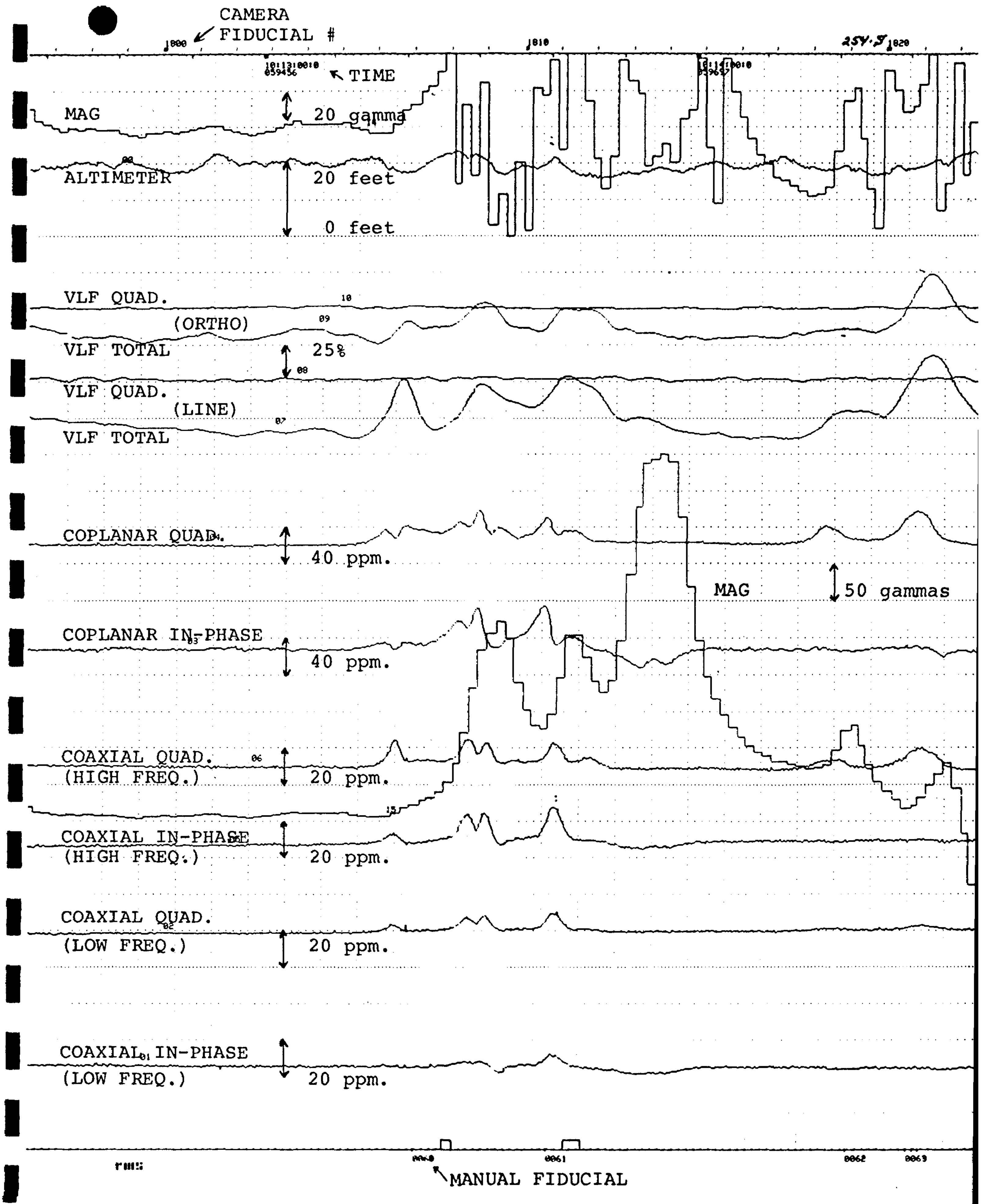
3.2.6 Tracking Camera

A Geocam tracking camera was used to record flight path on 35 mm film. The camera was operated in strip mode and the fiducial numbers for cross reference to the analog and digital data were imprinted on the margin of the film.

3.2.7 Analog Recorder

A RMS dot-matrix recorder was used to display the data during the survey. A sample record with channel identification and scales is presented on the following page.

ANALOG CHART



3.2.8 Digital Recorder

A Perle DAC/NAV data system recorded the survey data on cassette magnetic tape. Information recorded was as follows:

Equipment	Interval
EM	0.1 second
VLF-EM	0.5 second
magnetometer	0.5 second
altimeter	1.0 second
fiducial (time)	1.0 second
fiducial (manual)	0.2 second

4. DATA PRESENTATION

4.1 Base Map and Flight Path Recovery

The base map photomosaic at a scale of 1/15,840 was constructed from available aerial photography. The flight path was plotted manually on this base and digitized for use in the computer compilation of the maps. The flight path is presented with fiducials for cross reference to both the analog and digital data.

4.2 Electromagnetic Profile Maps

The electromagnetic data was recorded digitally at a high sample rate of 10/second with a small time constant of 0.1 second. A two stage digital filtering process was carried out to reject major sferic events, and reduce system noise.

Local atmospheric activity can produce sharp, large amplitude events that cannot be removed by conventional filtering procedures. Smoothing or stacking will reduce their amplitude but leave a broader residual response that can be confused with a geological phenomenon. To avoid this possibility, a computer algorithm searches out and rejects the major "sferic" events.

The signal to noise was further enhanced by the application of a low pass filter. The filter was applied digitally. It has zero phase shift which prevents any lag or peak displacement from occurring and it suppresses only variation with a wavelength less than about 0.25 seconds. This low effective time constant permits maximum profile shape resolution.

Following the filtering processes, a base level correction was made. The correction applied is a linear function of time that ensures that the corrected amplitude of the various inphase and quadrature components is zero when no conductive or permeable source is present. This filtered and levelled data was then presented in profile map form.

The in-phase and quadrature responses of the coaxial 955 Hz configuration are plotted with the flight path and presented on the photomosaic base.

The in-phase and quadrature responses of the coaxial 4500 Hz and the coplanar 4130 Hz configuration are plotted with flight path and are available as a two colour overlay.

4.3 Magnetic Contour Maps

The aeromagnetic data was corrected for diurnal variations by subtraction of the digitally recorded base station magnetic profile. No correction for regional variation is applied.

The corrected profile data was interpolated onto a regular grid at a 2.5 mm interval using a cubic spline technique. The grid provided the basis for threading the presented contours at a 10 gamma interval.

4.4 VLF-EM Contour and Profile Maps

The VLF-EM "LINE" signal, was compiled in map form. The mean response level of the total field signal was removed and the data was gridded and contoured at an interval of 2%. When the "ORTHO" signal was available it was compiled in a similar fashion.

4.5 Electromagnetic Conductor Symbolization

The electromagnetic profile maps were used to identify those anomalies with characteristics typical of bedrock conductors. The in-phase and quadrature response amplitudes at 4130 Hz were digitally applied to a phasor diagram for the vertical half-plane model and estimates of conductance (conductivity thickness) were made. The conductance levels were divided into categories as indicated in the map legend; the higher the number, the higher the estimated conductivity thickness product.

As discussed in Appendix I the conductance should be used as a relative rather than absolute guide to conductor quality. A conductance value of less than 2 mhos is typical for conductive overburden material and electrolytic conductors in faults and shears. Values greater than 4 mhos generally indicate some electronic conduction by certain metallic sulphides and/or graphite. Gold, although highly conductive, is not expected to occur in sufficient concentration to directly produce an electromagnetic anomaly; however, accessory mineralization such as pyrite or graphite can produce a measurable response.

With the aid of the profile maps, responses of similar characteristics may be followed from line to line and conductor axes identified.

The distinction between conductive bedrock and overburden anomalies is not always clear and some of the symbolized anomalies may not be of bedrock origin. It is also possible that a response may have been mistakenly attributed to overburden and therefore not included in the symbolization process. For this reason, as geological and other geophysical information becomes available, reassessment of the significance of the various conductors is recommended.

4.6 INTERPRETATION MAPS

The conductive trends are shown and discriminated for descriptive purposes.

These conductors are described below.

1 Questionable conductor, may be surficial sediments.

2 Low amplitude, short, moderate bedrock conductor.

3 Weak bedrock conductor, varying response for 1600'.

Respectfully submitted,

August 5, 1983. Fenton Scott, P.Eng.

APPENDIX I

GENERAL INTERPRETIVE CONSIDERATIONS

Electromagnetic

The Aerodat 3 frequency system utilizes 2 different transmitter-receiver coil geometries. The traditional coaxial coil configuration is operated at 2 widely separated frequencies and the horizontal coplanar coil pair is operated at a frequency approximately aligned with one of the coaxial frequencies.

The electromagnetic response measured by the helicopter system is a function of the "electrical" and "geometrical" properties of the conductor. The "electrical" property of a conductor is determined largely by its conductivity and its size and shape; the "geometrical" property of the response is largely a function of the conductors shape and orientation with respect to the measuring transmitter and receiver.

Electrical Considerations

For a given conductive body the measure of its conductivity or conductance is closely related to the measured phase shift between the received and transmitted electromagnetic field. A small phase shift indicates a relatively high conductance, a large phase shift lower conductance. A small phase shift results in a large in-phase to quadrature ratio and a large phase shift a low ratio. This relationship is shown quantitatively for a vertical half-plane model on the accompanying phasor diagram. Other physical models will show the same trend but different quantitative relationships.

The phasor diagram for the vertical half-plane model, as presented, is for the coaxial coil configuration with the amplitudes in ppm as measured at the response peak over the conductor. To assist the interpretation of the survey results the computer is used to identify the apparent conductance and depth at selected anomalies. The results of this calculation are presented in table form in Appendix I and the conductance and in-phase amplitude are presented in symbolized form on the map presentation.

The conductance and depth values as presented are correct only as far as the model approximates the real geological situation. The actual geological source may be of limited length, have significant dip, its conductivity and thickness may vary with depth and/or strike and adjacent bodies and overburden may have modified the response. In general the conductance estimate is less affected by these limitations than the depth estimate but both should be considered a relative rather than absolute guide to the anomalies properties.

Conductance in mhos is the reciprocal of resistance in ohms and in the case of narrow slab like bodies is the product of electrical conductivity and thickness.

Most overburden will have an indicated conductance of less than 2 mhos; however, more conductive clays may have an apparent conductance of say 2 to 4 mhos. Also in the low conductance range will be electrolytic conductors in faults and shears.

The higher ranges of conductance, greater than 4 mhos, indicate that a significant fraction of the electrical conduction is electronic rather than electrolytic in nature. Materials that conduct electronically are limited to certain metallic sulphides and to graphite. High conductance anomalies, roughly 10 mhos or greater are generally limited to sulphide or graphite bearing rocks.

Sulphide minerals with the exception of sphalerite, cinnabar and stibnite are good conductors; however, they may occur in a disseminated manner that inhibits electrical conduction through the rock mass. In this case the apparent conductance can seriously under rate the quality of the conductor in geological terms. In a similar sense the relatively non-conducting sulphide minerals noted above may be present in significant concentration in association with minor conductive sulphides, and the electromagnetic response only relate to the minor associate mineralization. Indicated conductance is also of little direct significance for the identification of gold mineralization. Although gold is highly conductive it would not be expected to exist in sufficient quantity to create a recognizable anomaly but minor accessory sulphide mineralization could provide a useful indirect indication.

In summary the estimated conductance of a conductor can provide a relatively positive identification of significant sulphide or graphite mineralization; however, a moderate to low conductance value does not rule out the possibility of significant economic mineralization.

Geometrical Considerations

Geometrical information about the geologic conductor can often be interpreted from the profile shape of the anomaly. The change in shape is primarily related to the change in inductive coupling among the transmitter, the target, and the receiver.

In the case of a thin, steeply dipping, sheet-like conductor, the coaxial coil pair will yield a near symmetric peak over the conductor. On the other hand the coplanar coil pair will pass through a null couple relationship and yield a minimum over the conductor, flanked by positive side lobes. As the dip of the conductor decreases from vertical, the coaxial anomaly shape changes only slightly, but in the case of the coplanar coil pair the side lobe on the down dip side strengthens relative to that on the up dip side.

As the thickness of the conductor increases, induced current flow across the thickness of the conductor becomes relatively significant and complete null coupling with the coplanar coils is no longer possible. As a result, the apparent minimum of the coplanar response over the conductor diminishes with increasing thickness, and in the limiting case of a fully 3 dimensional body or a horizontal layer or half-space, the minimum disappears completely.

A horizontal conducting layer such as overburden will produce a response in the coaxial and coplanar coils that is a function of altitude (and conductivity if not uniform). The profile shape will be similar in both coil configurations with an amplitude ratio (coplanar/coaxial) of about 4/1.*

In the case of a spherical conductor, the induced currents are confined to the volume of the sphere, but not relatively restricted to any arbitrary plane as in the case of a sheet-like form. The response of the coplanar coil pair directly over the sphere may be up to 8* times greater than that of the coaxial coil pair.

In summary a steeply dipping, sheet-like conductor will display a decrease in the coplanar response coincident with the peak of the coaxial response. The relative strength of this coplanar null is related inversely to the thickness of the conductor; a pronounced null indicates a relatively thin conductor. The dip of such a conductor can be infered from the relative amplitudes of the side-lobes.

Massive conductors that could be approximated by a conducting sphere will display a simple single peak profile form on both coaxial and coplanar coils, with a ratio between the coplanar to coaxial response amplitudes as high as 8.*

Overburden anomalies often produce broad poorly defined anomaly profiles. In most cases the response of the coplanar coils closely follow that of the coaxial coils with a relative amplitude ratio of 4.*

Occasionally if the edge of an overburden zone is sharply defined with some significant depth extent, an edge effect will occur in the coaxial coils. In the case of a horizontal conductive ring or ribbon, the coaxial response will consist of two peaks, one over each edge; whereas the coplanar coil will yield a single peak.

* It should be noted at this point that Aerodat's definition of the measured ppm unit is related to the primary field sensed in the receiving coil without normalization to the maximum coupled (coaxial configuration). If such normalization were applied to the Aerodat units, the amplitude of the coplanar coil pair would be halved.

Magnetics

The Total Field Magnetic Map shows contours of the total magnetic field, uncorrected for regional variation. Whether an EM anomaly with a magnetic correlation is more likely to be caused by a sulphide deposit than one without depends on the type of mineralization. An apparent coincidence between an EM and a magnetic anomaly may be caused by a conductor which is also magnetic, or by a conductor which lies in close proximity to a magnetic body. The majority of conductors which are also magnetic are sulphides containing pyrrhotite and/or magnetite. Conductive and magnetic bodies in close association can be, and often are, graphite and magnetite. It is often very difficult to distinguish between these cases. If the conductor is also magnetic, it will usually produce an EM anomaly whose general pattern resembles that of the magnetics. Depending on the magnetic permeability of the conducting body, the amplitude of the inphase EM anomaly will be weakened, and if the conductivity is also weak, the inphase EM anomaly may even be reversed in sign.

VLF Electromagnetics

The VLF-EM method employs the radiation from powerful military radio transmitters as the primary signals. The magnetic field associated with the primary field is elliptically polarized in the vicinity of electrical conductors. The Herz Totem uses three coils in the X. Y. Z. configuration to measure the total field and vertical quadrature component of the polarization ellipse.

The relatively high frequency of VLF 15-25 KHz provides high response factors for bodies of low conductance. Relatively "disconnected" sulphide ores have been found to produce measurable VLF signals. For the same reason, poor conductors such as sheared contacts, breccia zones, narrow faults, alteration zones and porous flow tops normally produce VLF anomalies. The method can therefore be used effectively for geological mapping. The only relative disadvantage of the method lies in its sensitivity to conductive overburden. In conductive ground the depth of exploration is severely limited.

The effect of strike direction is important in the sense of the relation of the conductor axis relative to the energizing electromagnetic field. A conductor aligned along a radius drawn from a transmitting station will be in a maximum coupled orientation and thereby produce a stronger response than a similar conductor at a different strike angle. Theoretically it would be possible for a conductor, oriented tangentially to the transmitter to produce no signal. The most obvious effect of the strike angle consideration is that conductors favourably oriented with respect to the transmitter location and also near perpendicular to the flight direction are most clearly rendered and usually dominate the map presentation.

The total field response is an indicator of the existence and position of a conductivity anomaly. The response will be a maximum over the conductor, without any special filtering, and strongly favour the upper edge of the conductor even in the case of a relatively shallow dip.

The vertical quadrature component over steeply dipping sheet like conductor will be a cross-over type response with the cross-over closely associated with the upper edge of the conductor.

The response is a cross-over type due to the fact that it is the vertical rather than total field quadrature component that is measured. The response shape is due largely to geometrical rather than conductivity considerations and the distance between the maximum and minimum on either side of the cross-over is related to target depth. For a given target geometry, the larger this distance the greater the depth.

The amplitude of the quadrature response, as opposed to shape is function of target conductance and depth as well as the conductivity of the overburden and host rock. As the primary field travels down to the conductor through conductive material it is both attenuated and phase shifted in a negative sense. The secondary field produced by this altered field at the target also has an associated phase shift. This phase shift is positive and is larger for relatively poor conductors. This secondary field is attenuated and phase shifted in a negative sense during return travel to the surface. The net effect of these 3 phase shifts determine the phase of the secondary field sensed at the receiver.

A relatively poor conductor in resistive ground will yield a net positive phase shift. A relatively good conductor in more conductive ground will yield a net negative phase shift. A combination is possible whereby the net phase shift is zero and the response is purely in-phase with no quadrature component.

A net positive phase shift combined with the geometrical cross-over shape will lead to a positive quadrature response on the side of approach and a negative on the side of departure. A net negative phase shift would produce the reverse. A further sign reversal occurs with a 180 degree change in instrument orientation as occurs on reciprocal line headings. During digital processing of the quadrature data for map presentation this is corrected for by normalizing the sign to one of the flight line headings.

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures) #[illegible]

#411/83

The M

42C15SE0004 2.6074 LIZAR 900

Type of Survey(s): ELECTROMAGNETIC, MAGNETIC, VLF-EM	Township or Area: BRECKENRIDGE
Claim Holder(s): TUNDRA GOLD MINES LIMITED	Prospector's Licence No.: T1533
Address: 4001 INDIAN SCHOOL ROAD NE, ALBUQUERQUE, NEW MEXICO, U.S.A. 87110	
Survey Company: AERODAT	Date of Survey (from & to): 26 3 83 – 29 3 83 (Day, Mo., Yr.) / Total Miles of line Cut: 55.75
Name and Address of Author (of Geo-Technical report): FENTON SCOTT 17 MALABAR PLACE DON MILLS ONTARIO	

Credits Requested per Each Claim in Columns at right

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

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

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	22.1
	Magnetometer	22.1
	~~Radiometric~~ VLF	22.1

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

Instructions

Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Mining Claims Traversed (List in numerical sequence)

Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
SSM	702 610		SSM	702 866	
	11			67	
	18			68	
	19			69	
	20			70	
	21			71	
	22			702 948	
	23			49	
	24			50	
	31			51	
	32			52	
	33			69	
	702 811			703 051	?
	12			52	
	13			53	
	14			54	
	15			55	
	16			56	
	36			57	
	62			58	
	63			59	
	64			60	
	65			61	

See revised work statement

Total number of mining claims covered by this report of work. 101

RECORDED DEC 1 1983 Receipt No.

SAULT STE. MARIE MINING DIV. RECEIVED DEC 9 1983 A.M. P.M. 7 8 9 10 11 12 1 2 3 4 5 6

RECEIVED FEB 3 1984 MINING LANDS SECTION

PORCUPINE MINING DIVISION RECEIVED DEC 15 1983 A.M. P.M. 7 8 9 10 11 12 1 2 3 4 5 6

For Office Use Only		
Total Days Cr. Recorded: 6696.3	Date Recorded: Dec 15/83	Mining Recorder: [signature]
	Date Approved as Recorded	Branch Director

Date	Recorded Holder or Agent (Signature)
NOV 23/83	[signature] agent

Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying: FENTON SCOTT, 17 MALABAR PLACE, DON MILLS, ONTARIO

Date Certified	Certified by (Signature)
NOV 23/83	[signature]

Your file 2.674

Ministry of Natural Resources

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

The Mining Act

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.

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

Type of Survey(s)	Township or Area

Claim Holder(s)	Prospector's Licence No.

Address

Survey Company	Date of Survey (from & to) Day / Mo. / Yr. / Day / Mo. / Yr.	Total Miles of line Cut

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

Credits Requested per Each Claim in Columns at right

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

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

RECEIVED
FEB 3 1984
MINING LANDS SECTION

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

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

PORCUPINE MINING DIVISION
RECEIVED
DEC 15 1983
A.M. P.M.
7,8,9,10,11,12,1,2,3,4,5,6

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date	Recorded Holder or Agent (Signature)

Mining Claims Traversed (List in numerical sequence)

Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
~~SSM~~ L	703062		~~SSM~~ L	703 085	
	63			86	
	64			87	
	65			88	
	66			89	
	67			90	
	68			91	
	69			92	
	70			93	
	71			94	
	72			95	
	73			96	
	74			97	
	75			98	
	76			99	
	77			703100	
	78			01	
	79			02	
	80			03	
	81			04	
	82			05	
	83			06	
	84			07	

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

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
	Date Approved as Recorded	Branch Director

Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying

	Date Certified	Certified by (Signature)

Your file 2.6074

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

The Mining Act

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s)	Township or Area
Claim Holder(s)	Prospector's Licence No.
Address	
Survey Company	Date of Survey (from & to) Day / Mo. / Yr. / Day / Mo. / Yr. — Total Miles of line Cut
Name and Address of Author (of Geo-Technical report)	

Credits Requested per Each Claim in Columns at right

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

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Number	Expend. Days Cr.	Mining Claim Prefix	Number	Expend. Days Cr.
~~SSM~~ P	703 108				
	09				
	10				
	11				
	12	2.			
	13				
	14				
	15				
	16				

RECEIVED
FEB 3 1984
MINING LANDS SECTION

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

PORCUPINE MINING DIVISION
RECEIVED
DEC 15 1983
P.M.
7,8,9,10,11,12,1,2,3,4,5,6

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

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

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date	Recorded Holder or Agent (Signature)

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
	Date Approved as Recorded	Branch Director

Certification Verifying Report of Work

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Name and Postal Address of Person Certifying

	Date Certified	Certified by (Signature)

File________

Ontario

Ministry of Natural Resources

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) ELECTRO MAGNETIC, MAGNETIC, VLF-EM

Township or Area BRECKENRIDGE

Claim Holder(s) TUNDRA GOLD MINES LIMITED

Survey Company AERODAT

Author of Report FENTON SCOTT

Address of Author 17 MALABAR PL DON MILLS ONT.

Covering Dates of Survey MARCH 26→29 1983 (linecutting to office)

Total Miles of Line Cut 55.75

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
~~SSM~~ P.	702 610
see list attached	

If space insufficient, attach list

TOTAL CLAIMS 101

SPECIAL PROVISIONS CREDITS REQUESTED

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

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
–Electromagnetic	
–Magnetometer	
–Radiometric	
–Other	
Geological	
Geochemical	

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

Magnetometer 22.1 Electromagnetic 22.1 ~~Radiometric~~ VLF 22.1
(enter days per claim)

DATE: Nov 29/83 SIGNATURE: [signature]
Author of Report or Agent

OFFICE USE ONLY

Res. Geol.________ Qualifications 63.1263

Previous Surveys

File No.	Type	Date	Claim Holder

RECEIVED DEC 28 1983 MINING LANDS SECTION

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations ______________________ Number of Readings ______________________
Station interval ______________________ Line spacing ______________________
Profile scale ______________________
Contour interval ______________________

MAGNETIC

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

____

ELECTROMAGNETIC

Instrument ______________________
Coil configuration ______________________
Coil separation ______________________
Accuracy ______________________
Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line
Frequency ______________________
(specify V.L.F. station)
Parameters measured ______________________

GRAVITY

Instrument ______________________
Scale constant ______________________
Corrections made ______________________

____

Base station value and location ______________________

____

Elevation accuracy ______________________

INDUCED POLARIZATION RESISTIVITY

Instrument ______________________
Method ☐ Time Domain ☐ Frequency Domain
Parameters – On time ______________________ Frequency ______________________
– Off time ______________________ Range ______________________
– Delay time ______________________
– Integration time ______________________
Power ______________________
Electrode array ______________________
Electrode spacing ______________________
Type of electrode ______________________

SELF POTENTIAL

Instrument ________ Range ________

Survey Method ________

Corrections made ________

RADIOMETRIC

Instrument ________

Values measured ________

Energy windows (levels) ________

Height of instrument ________ Background Count ________

Size of detector ________

Overburden ________
(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey ________

Instrument ________

Accuracy ________

Parameters measured ________

Additional information (for understanding results) ________

AIRBORNE SURVEYS

Type of survey(s) MAGNETIC   EM   VLF

Instrument(s) GEOMETRICS 6-803   AERODAT 3 FREQ   TOTEM 2A
(specify for each type of survey)

Accuracy 0.5 GAMMAS   1 PPM   1% (1 MM)
(specify for each type of survey)

Aircraft used AERO SPATIAL -A-STAR HELICOPTER

Sensor altitude 150'   100'   150'

Navigation and flight path recovery method VISUAL NAVIGATION   MANUAL AND AUTOMATIC FIDUCIALS - ON BOARD CAMERA

Aircraft altitude 200'   Line Spacing 660

Miles flown over total area 541   Over claims only 55.7

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken ____________________

____

____

Total Number of Samples ____________________

Type of Sample ____________________
(Nature of Material)

Average Sample Weight ____________________

Method of Collection ____________________

____

Soil Horizon Sampled ____________________

Horizon Development ____________________

Sample Depth ____________________

Terrain ____________________

____

Drainage Development ____________________

Estimated Range of Overburden Thickness ____________________

____

____

SAMPLE PREPARATION

(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis ____________________

____

____

____

General ____________________

____

____

____

____

____

____

____

____

____

ANALYTICAL METHODS

Values expressed in: per cent ☐ p. p. m. ☐ p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others ____________________

Field Analysis (____________________ tests)

Extraction Method ____________________

Analytical Method ____________________

Reagents Used ____________________

Field Laboratory Analysis

No. (____________________ tests)

Extraction Method ____________________

Analytical Method ____________________

Reagents Used ____________________

Commercial Laboratory (____________________ tests)

Name of Laboratory ____________________

Extraction Method ____________________

Analytical Method ____________________

Reagents Used ____________________

General ____________________

____

____

____

____

____

____

____

____

____

2.6074

1984 05 03

Your File: 411/83
Our File: 2.6074

Mr. Bruce Hanley
Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

RE: Airborne Geophysical (Electromagnetic, Magnetometer and V.L.F.) Survey on Mining Claims P 702610 et al in the Township of Breckenridge

The Airborne Geophysical (Electromagnetic, Magnetometer and V.L.F.) Survey assessment work credits as listed with my Notice of Intent dated April 9, 1984 have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-6918

D. Kinvig:mc

cc: Tundra Gold Mines Ltd
4001 Indian Road N.E.
Albriquerque, New Mexico
U.S.A. 87110

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario

cc: Resident Geologist
Timmins, Ontario

Encl.

Ministry of Natural Resources
Ontario

Technical Assessment Work Credits

File	
	2.6074

Date	Mining Recorder's Report of Work No.
1984 04 09	411/83

Recorded Holder
TUNDRA GOLD MINES LIMITED

Township or Area
BRECKENBRIDGE & LIZAR TOWNSHIPS

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	P 702610-11
Electromagnetic ~~22.1~~ days	702618 to 24 inclusive
Magnetometer 22.1 days	702631 to 33 inclusive
Radiometric VLF 22.1 days	702811 to 16 inclusive
Induced polarization ____ days	702836
Other ____ days	702862 to 71 inclusive
Section 77 (19) See "Mining Claims Assessed" column	702948 to 52 inclusive
Geological ____ days	702969
Geochemical ____ days	703052 to 116 inclusive
Man days ☐ Airborne ☒	
Special provision ☐ Ground ☐	
☐ Credits have been reduced because of partial coverage of claims.	
☐ Credits have been reduced because of corrections to work dates and figures of applicant.	

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

☒ not sufficiently covered by the survey ☐ Insufficient technical data filed

P 703051

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Section 77 (19) — 60:

828 (83/6)

Ministry of Natural Resources
Ontario

April 24/84

1984 04 09

Your File: 411/83
Our File: 2.6074

Mr. Bruce Hanley
Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact Mr. F.W. Matthews at 416/965-6918.

Yours very truly,

S.E. Yundt

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1316

D. Kinvig:mc

Encls.

cc: Tundra Gold Mines Ltd
4001 Indian Road N.E.
Albriquerque, New Mexico
U.S.A. 87110

cc: Mr. G.H. Ferguson
Mining & Lands Commissione
Toronto, Ontario

Ministry of Natural Resources

Ontario

Notice of Intent

for Technical Reports

1984 04 09

2.6074/411/83

An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on his record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted direct to the Lands Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.

Ministry of Natural Resources
Ontario

Geotechnical Report Approval

File: 26074

Mining Lands Comments

-okay-

[✓] To: Geophysics Mr. R. Barlow.

Comments

[✓] Approved [ ] Wish to see again with corrections | Date: Feb 22/84 | Signature: R Barlow

[ ] To: Geology - Expenditures

Comments

[ ] Approved [ ] Wish to see again with corrections | Date | Signature

[ ] To: Geochemistry

Comments

L.D.

[ ] Approved [ ] Wish to see again with corrections | Date | Signature

[ ] To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

1593 (81/10)

M. Anderson. Feb 15/84

Assesser D.K. – 16/3/84

Approved Reports of Work sent out

Notice of Intent filed

Approval after Notice of Intent sent out

Duplicate sent to Resident Geologist

Duplicate sent to A.F.R.O.

1983 12 05 2.6074

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

Dear Sir:

We have received reports and maps for an Airborne Geophysical (Electromagnetic, Magnetometer and V.L.F.) survey submitted on mining claims P 702610 et al in the Township of Breckenridge.

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

We do not have a copy of the report of work which is normally filed with you prior to the submission of this technical data. Please forward a copy as soon as possible.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-1380

A. Barr:mc

cc: Tundra Gold Mines Ltd
4001 Indian Road N.E.
Albriquerque, New Mexico
U.S.A. 87110

cc: Fenton Scott
17 Malabar Place
Don Mills, Ontario
M3B 1A4

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

DUPL.

The Mining Act

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s): ELECTROMAGNETIC, MAGNETIC, VLF-EM	Township or Area: BRECKENRIDGE
Claim Holder(s): TUNDRA GOLD MINES LIMITED	Prospector's Licence No.: T1533
Address: 4001 INDIAN SCHOOL ROAD NE, ALBUQUERQUE, NEW MEXICO, U.S.A. 87110	
Survey Company: AERODAT	Date of Survey (from & to): 26 3 83 – 29 3 83 (Day / Mo. / Yr.) — Total Miles of line Cut: 55.75
Name and Address of Author (of Geo-Technical report): FENTON SCOTT 17 MALABAR PLACE DON MILLS ONTARIO	

Credits Requested per Each Claim in Columns at right

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

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

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	22.1
	Magnetometer	22.1
	~~Radiometric~~ VLF	22.1

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures $ ______ ÷ 15 = Total Days Credits ______

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date	Recorded Holder or Agent (Signature)

Mining Claims Traversed (List in numerical sequence)

Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
~~SSM~~ P	702 610		~~SSM~~ P	702 866	
	11			67	
	18			68	
	19			69	
	20			70	
	21			71	
	22			702 948	
	23			49	
	24			50	
	31			51	
	32			52	
	33			69	
	702 811			703 051	
	12			52	
	13			53	
	14			54	
	15			55	
	16			56	
	36			57	
	62			58	
	63			59	
	64			60	
	65			61	

Total number of mining claims covered by this report of work. 101

For Office Use Only		
Total Days Cr. Recorded	Date Recorded	Mining Recorder
	Date Approved as Recorded	Branch Director

Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying

Ontario

Ministry of Natural Resources

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

The Mining Act

Instructions: — Please type or print.
— If number of mining claims traversed exceeds space on this form, attach a list.

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

Type of Survey(s)	Township or Area

Claim Holder(s)	Prospector's Licence No.

Address

Survey Company	Date of Survey (from & to) Day | Mo. | Yr. | Day | Mo. | Yr.	Total Miles of line Cut

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

Credits Requested per Each Claim in Columns at right

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

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

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

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
~~[illegible]~~ P	703062		~~[illegible]~~ P	703 085	
	63			86	
	64			87	
	65			88	
	66			89	
	67			90	
	68			91	
	69			92	
	70			93	
	71			94	
	72			95	
	73			96	
	74			97	
	75			98	
	76			99	
	77			703100	
	78			01	
	79			02	
	80			03	
	81			04	
	82			05	
	83			06	
	84			07	

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

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures				Total Days Credits
$	÷	15	=	

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date	Recorded Holder or Agent (Signature)

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
	Date Approved as Recorded	Branch Director

Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying

Ministry of Natural Resources

Ontario

Report of Work

(Geophysical, Geological, Geochemical and Expenditures)

The Mining Act

Instructions: — Please type or print.
— If number of mining claims traversed exceeds space on this form, attach a list.

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

Type of Survey(s)	Township or Area
Claim Holder(s)	Prospector's Licence No.
Address	
Survey Company	Date of Survey (from & to) Day | Mo. | Yr. | Day | Mo. | Yr. — Total Miles of line Cut
Name and Address of Author (of Geo-Technical report)	

Credits Requested per Each Claim in Columns at right

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

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
SSM	703 108	
	09	
	10	
	11	
	12	
	13	
	14	
	15	
	16	
	[illegible]	

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

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures				Total Days Credits
$	÷	15	=	

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Date	Recorded Holder or Agent (Signature)

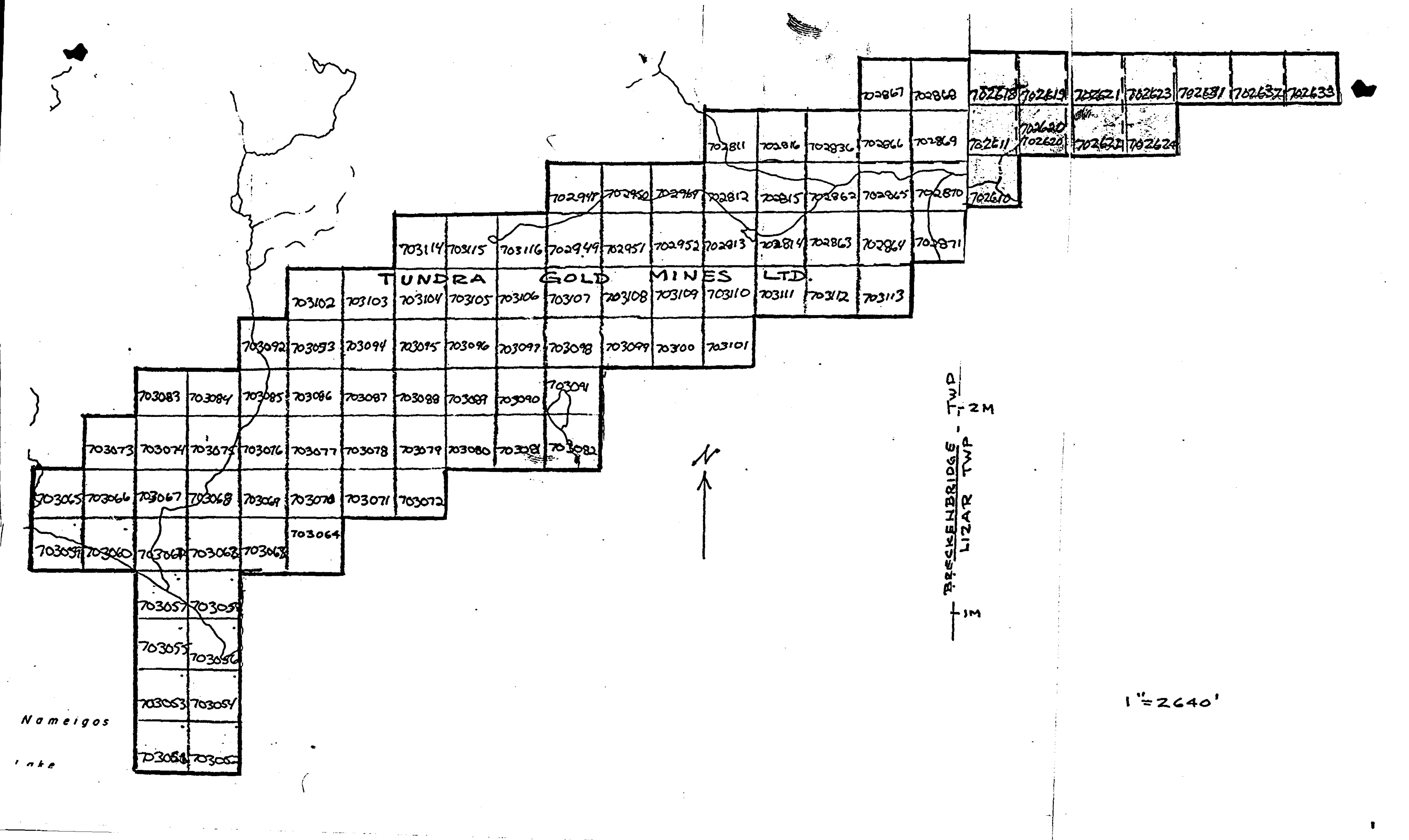
For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
	Date Approved as Recorded	Branch Director

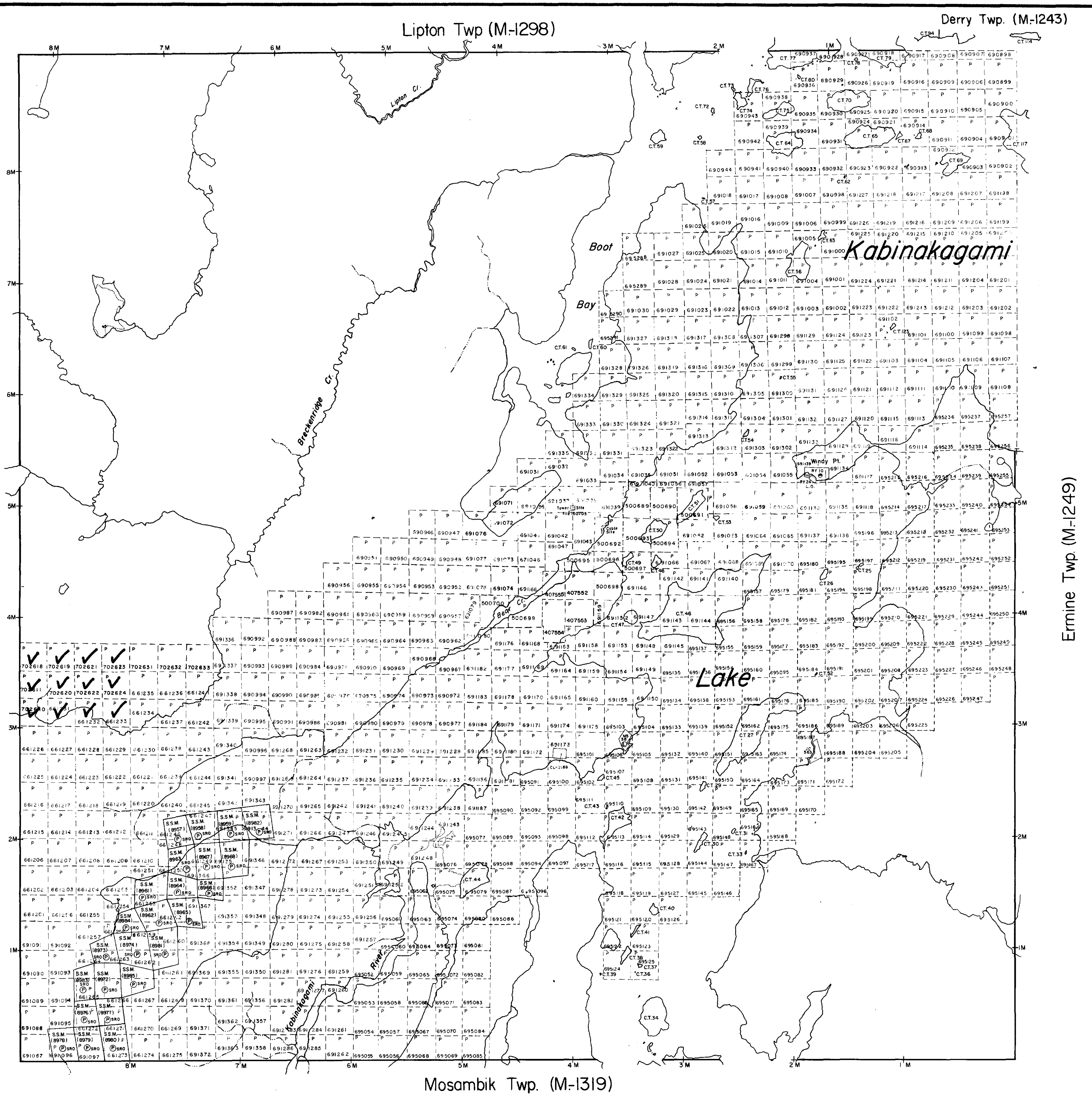
Certification Verifying Report of Work

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

Name and Postal Address of Person Certifying



TUNDRA GOLD MINES LTD.
BRECKENBRIDGE TWP
LIZAR TWP
2M
1M
N
1"=2640'
Nameigos
Lake



THE TOWNSHIP OF

LIZAR

DISTRICT OF **ALGOMA**

PORCUPINE MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

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

NOTES

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

DATE OF ISSUE
MAR 15 1984
Ministry of Natural Resources TORONTO

PLAN NO.-M.1299

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

C.M.T.

42C15SE0004 2.6874 LIZAR

200

G-1875

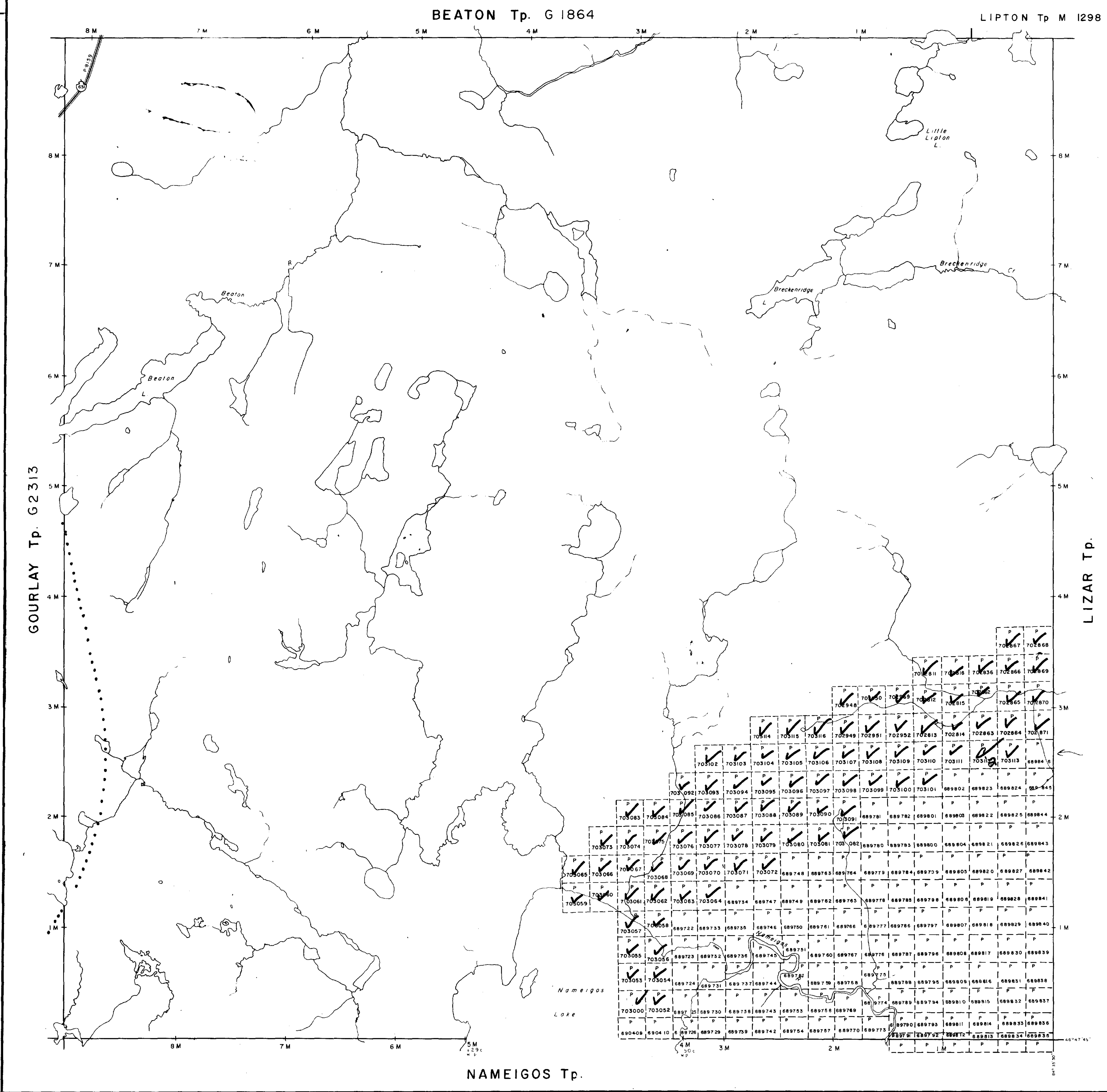
BRECKENRIDGE TWP.

REFERENCES

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



REFERENCES

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	Ⓖ

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.

SCALE 1 INCH = 40 CHAINS

FEET 0 1000 2000 4000 6000 8000
METRES 0 200 1000 (1 KM) 2000 (2 KM)

TOWNSHIP

BRECKENBRIDGE

M.N.R. ADMINISTRATIVE DISTRICT
HEARST
MINING DIVISION
PORCUPINE
LAND TITLES / REGISTRY DIVISION
ALGOMA

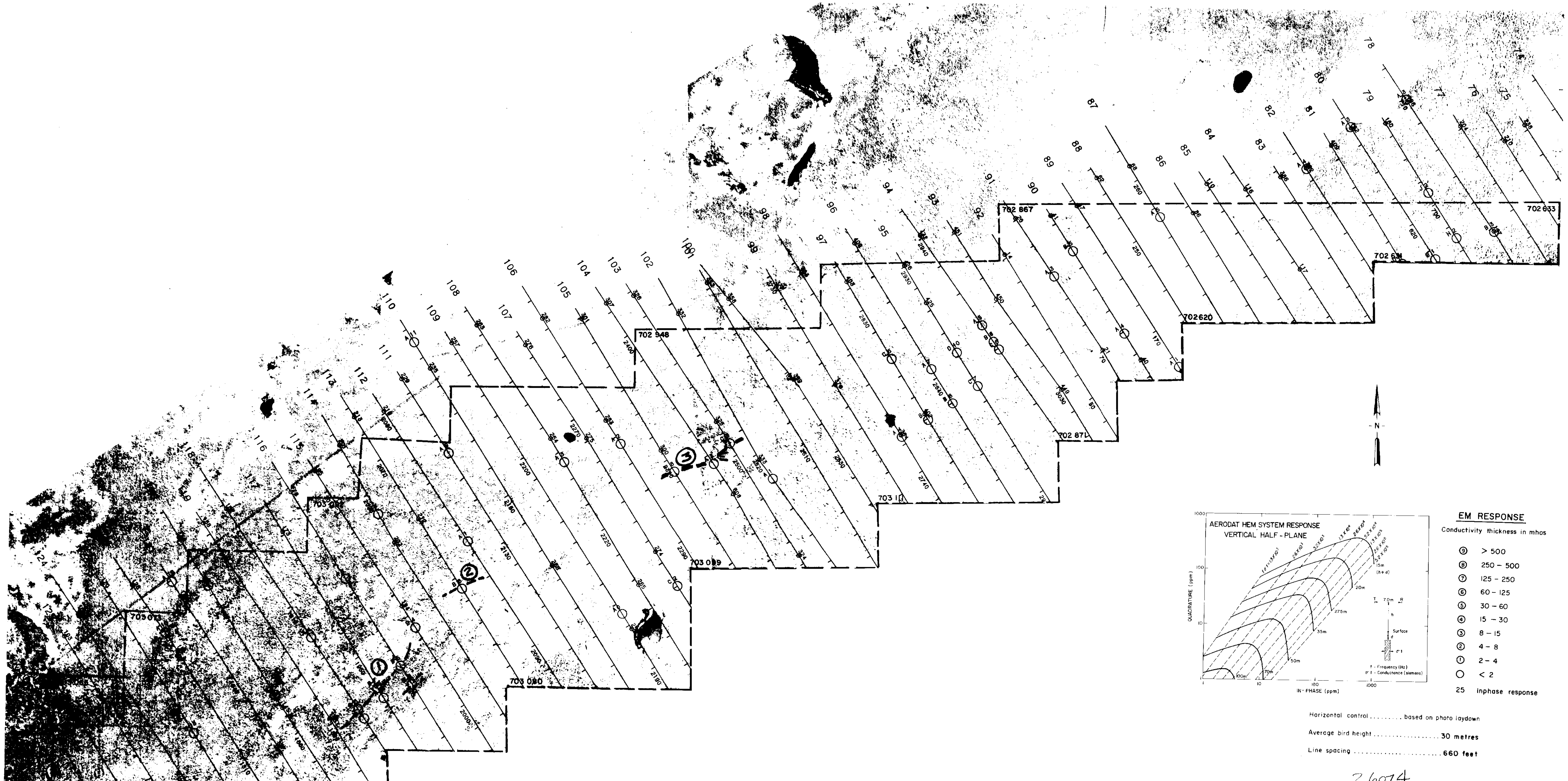
Ministry of Natural Resources
Land Management Branch
Ontario

Date: MARCH 3, 1983

Number: **G-1875**

42C15SE0004 2.6874 LIZAR

210



2.6074

PROSPECTING GEOPHYSICS LTD.

AIRBORNE ELECTROMAGNETIC SURVEY

TUNDRA GOLD MINES LTD.
HORNEPAYNE AREA
ONTARIO

SCALE 1/15,840

1/2 0 1/2 Mile

1 0 1 Km

AERODAT LIMITED

DATE:	March 1983
N.T.S. No:	42C, 42F

42C15SE0004 2.6074 LIZAR

220

PROSPECTING GEOPHYSICS LTD.

AIRBORNE ELECTROMAGNETIC SURVEY

PROFILES

TUNDRA GOLD MINES LTD.

HORNEPAYNE AREA

ONTARIO

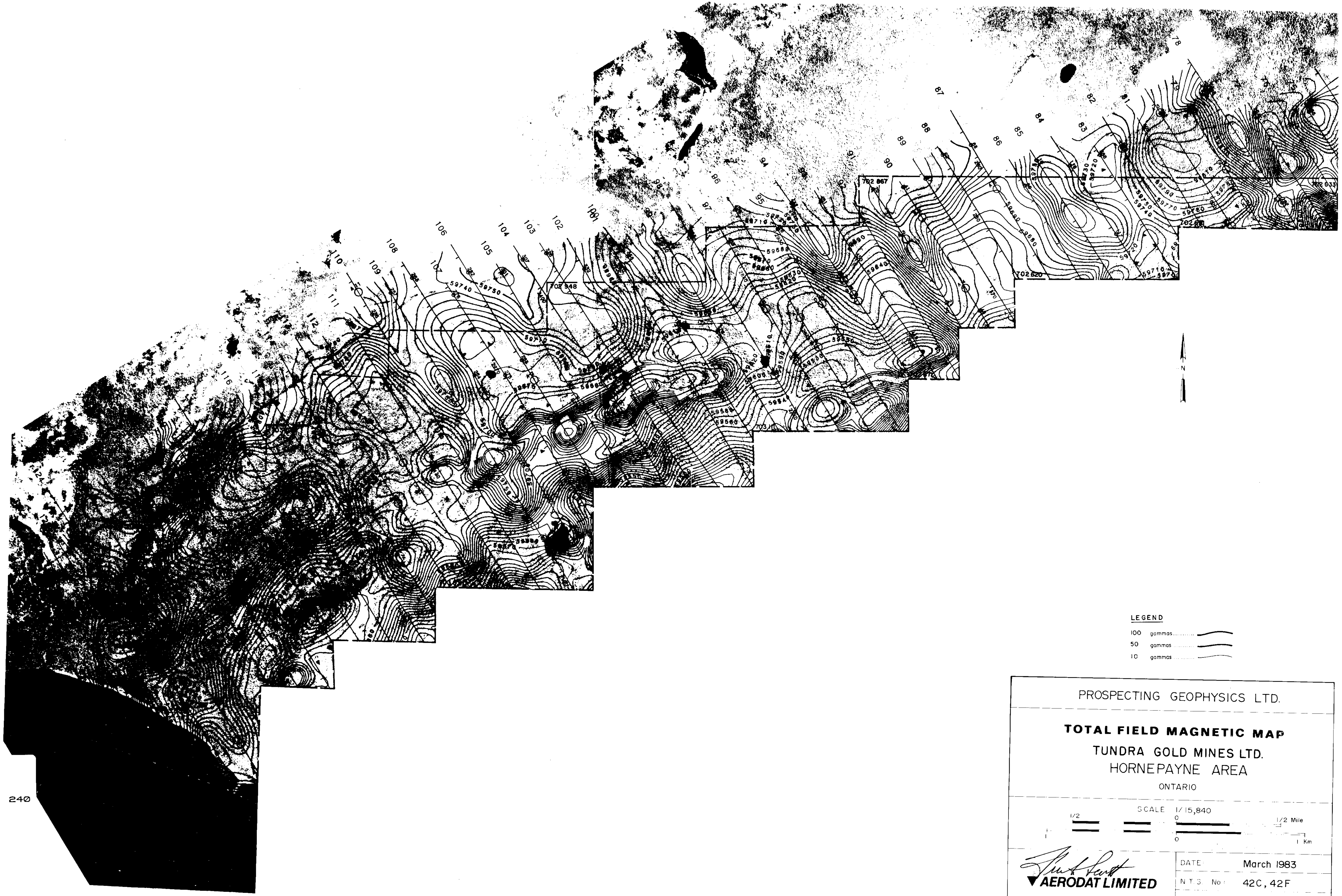
SCALE 1/15,840

1/2 0 1/2 Mile

1 0 1 Km

AERODAT LIMITED

DATE	March 1983
N.T.S. No.	42C, 42F
MAP No.	2



LEGEND

100 gammas
50 gammas
10 gammas

PROSPECTING GEOPHYSICS LTD.

TOTAL FIELD MAGNETIC MAP

TUNDRA GOLD MINES LTD.

HORNEPAYNE AREA

ONTARIO

SCALE 1/15,840

1/2 0 1/2 Mile

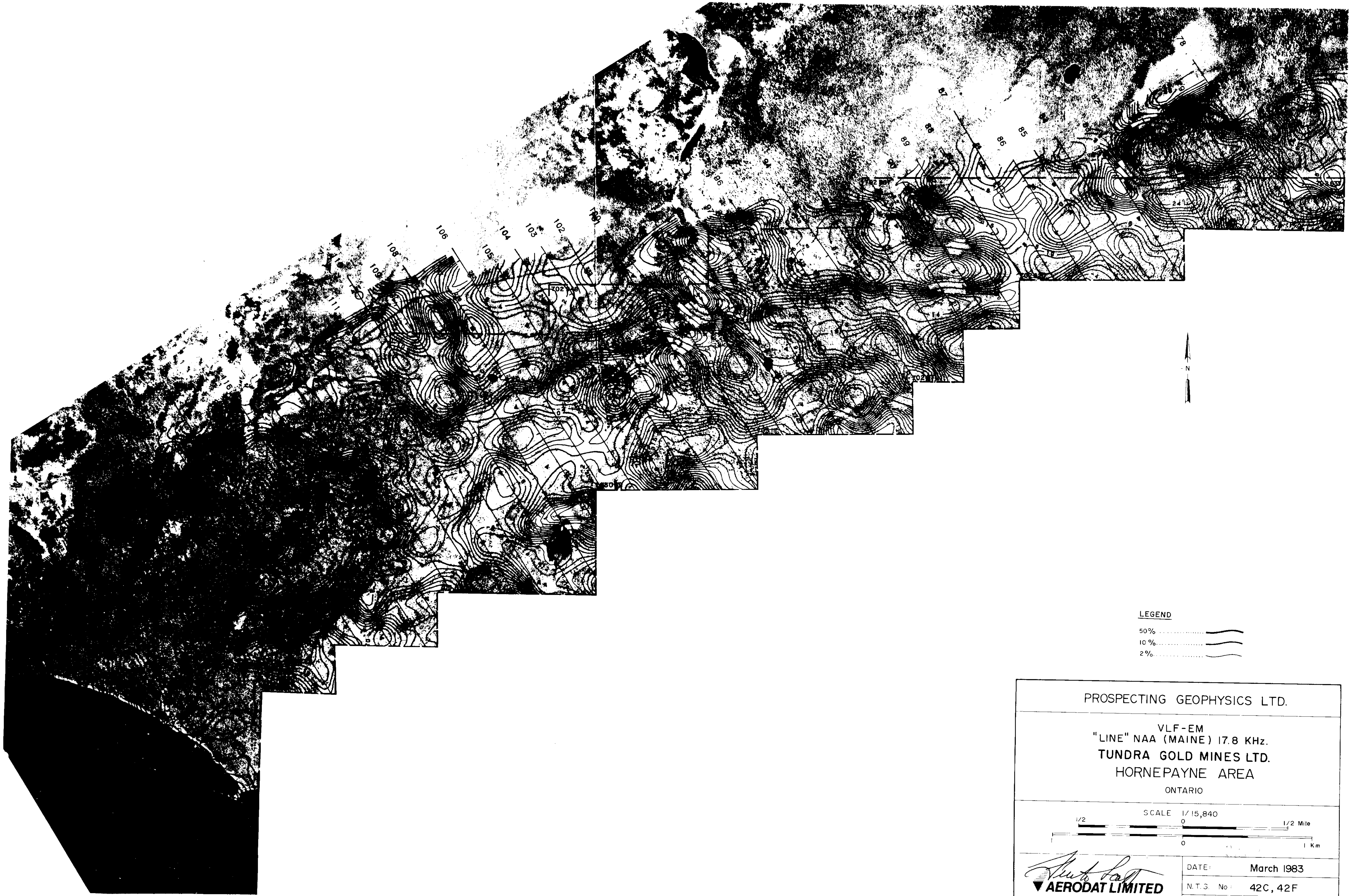
0 1 Km

AERODAT LIMITED

DATE	March 1983
N.T.S. No.	42C, 42F

42C15SE0004 2.6074 LIZAR

240



LEGEND

50% ....
10% ....
2% ....

PROSPECTING GEOPHYSICS LTD.

VLF-EM
"LINE" NAA (MAINE) 17.8 KHz.
TUNDRA GOLD MINES LTD.
HORNEPAYNE AREA
ONTARIO

SCALE 1/15,840

1/2 — 0 — 1/2 Mile

1 — 0 — 1 Km

AERODAT LIMITED

DATE:	March 1983
N.T.S. No:	42C, 42F

250