2.13139

REPORT ON COMBINED HELICOPTER BORNE MAGNETIC AND VLF SURVEY NIGHT HAWK LAKE BLOCK TIMMINS AREA ONTARIO

FOR
PAMOREX MINERALS INC.
BY
AERODAT LIMITED
February 19, 1990

J8983

R.J. de Carle
Consulting Geophysicist

Qual 2.11556

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(Scale 1:20,000)

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1. INTRODUCTION

This report describes an airborne geophysical survey carried out on behalf of Pamorex Minerals Inc. by Aerodat Limited. Equipment operated included a high sensitivity cesium vapour magnetometer, a two frequency VLF-EM system, a video tracking camera and a radar altimeter. Magnetic, VLF-EM and altimeter data were recorded both in digital and analog form. Positioning data were stored in digital form and recorded on VHS video tapes as well as being marked on the flight path mosaic by the operator while in flight.

The survey area, comprised of a block of ground in the Night Hawk Lake area, is located approximately 20 kilometres east of Timmins, Ontario. Nine (9) flights, which were flown between November 30 and December 14, 1989, were required to complete the survey with flight lines oriented in two directions. The Night Hawk Lake block was flown at an Azimuth of 160-340 degrees employing a 100 metre line spacing and at an Azimuth of 070-250 degrees with a line spacing of 200 metre line spacing. Coverage and data quality were considered to be well within the specifications described in the contract.

The survey objective is to acquire magnetic and VLF-EM data which will assist in the detection and location of structural effects and the mapping of favourable geological horizons for gold bearing environments. "It is the writer's contention that the ultramafic volcanic rocks in the Timmins area may have provided the main source bed for the gold mineralization. The gold was subsequently mobilized in large part during carbonatization

of the ultramafic rocks, and deposited in structurally favourable sites." The VLF-EM data will also be assessed for its base metal potential within the felsic cal-alkalic volcanic rocks near the top of the Deloro Group and the lower sequence of the upper Tisdale Group.

A total of 819 kilometres of magnetic data and 766 kilometres of VLF-EM data were acquired and compiled in map form and are presented as part of this report according to specifications outlined by Pamorex Minerals Inc.

2. SURVEY AREA LOCATION

2.1 Property Location and Access

The survey block is depicted on the index map as shown. It is centred at Latitude 48 degrees 30 minutes north, Longitude 80 degrees 58 minutes west, approximately 20 kilometres east of Timmins, Ontario.

Highway 101, between Matheson and Timmins, gives access to the northern portions of Night Hawk Lake, including northwestern Cody Township, the North Peninsula and west Central Macklem Township including East Peninsula. Travel by water gives best access to most areas within the Night Hawk Lake block. Parts of the area, notably southwest Cody Township and southwest Macklem Township are best reached by helicopter.

2.2 Claim Numbers

Cody Township

There were a total of 246 claims in Cody Township covered in this airborne geophysical survey. They are as follows:

P. 724605 - P. 724611
P. 779926 - P. 779928
P. 970001 - P. 970003
P. 1025818 - P. 1025844
P. 1025847 - P. 1025852
P. 1025867
P. 1026095 - P. 1026099

P. 1029586
P. 1030718 - P. 1030727
P. 1031177 - P. 1031178
P. 1031180 - P. 1031181
P. 1031183 - P. 1031195
P. 1031217 - P. 1031251
P. 1115200 - P. 1115205
P. 1127500 - P. 1127501
P. 1127789 - P. 1127790
P. 1128378 - P. 1128392
P. 1128393 - P. 1128407
P. 1128408 - P. 1128428
P. 1128433 - P. 1128437
P. 1128446 - P. 1128483
P. 1128491 - P. 1128497
P. 1128508 - P. 1128512
P. 1128538 - P. 1128547
P. 1128609 - P. 1128613

Macklem Township

There were a total of 92 claims covered in Macklem Township and are as follows:

P. 724599 - P. 724604
P. 849670
P. 867797 - P. 867800
P. 868201 - P. 868228
P. 995002 - P. 995003
P. 995005
P. 995075
P. 995351
P. 1115194 - P. 1115199
P. 1116270

P. 1126561 - P. 1126566

P. 1126568 - P. 1126569

P. 1127494 - P. 1127499

P. 1128438 - P. 1128445

P. 1128498 - P. 1128507

P. 1128528 - P. 1128535

15'
81°00'
45'
OTTAWAY
FOURNIER
LAMARCHE
Downard
BROWER
FOX
574
Norembega
Berylvale
11
Wicklow
Fletchers L
ST JOHN
Coté
Arpin
PYNE
BECK
Buskegau
REAUME
Reaume
Creek
Reaume L
HANNA
Frederick
Pickerel
Gaffney L
Tom L
Gas
917
Potter
Pickerel L
MANN
Devonshire
Tunis
NEWMARKET
AURORA
LUCAS
DUFF
River
House
Devonshire
960
Devonshire L
Niddville
Nellie L
Microwave
Montrock
578
Nellie Lake
Ansonville
Dam
Prosser L
PROSSER
TULLY
McCART
Porquis (abandoned)
Onagon
911
67
LITTLE
Little River
Slim
Creek
Wilson L
CALVERT
Welsh
Porquis Junction
WARK
GOWAN
Ice Chest Lake
Chapman L
DUNDONALD
Kilburn
Kelso
903
CLERGUE
626
EVELYN
Frederick
House
Lake
McIntosh Springs
Monteith
North
Gowanmarsh Lake
Barbers Bay
McIntosh L
Bigwater L
Porcupine
916
Connaught
MATHESON
GERMAN
Alert
MURPHY
HOYLE
Dugwal
610
STOCK
Little Goose Lake
Timmins
KETTLE LAKES PROVINCIAL PARK
629
655
Keyson
Hoyle
Night Hawk Centre
Driftwood
Craft
Ck
Reid L
101
575
Abandoned
Pamour
Three Nations L
Northeast Bay
East Peninsula
TISDALE
North Peninsula
MACKLEM
Moose Lake
TIMMINS
South Porcupine L
Porcupine
CODY
Schumacher
South Porcupine
Poplar Pt
Night Hawk
BOND
Gold Centre
Fire Lookout
Simpson L
Dome
WHITNEY
Lake
Bottley L
Moose L
Crow
Sheraton L
DELORO
SHAW
CARMAN
THOMAS

3. AIRCRAFT AND EQUIPMENT

3.1 Aircraft

An Aerospatiale A-Star 350D helicopter, (C-GDUF), owned and operated by Canadian Helicopters Limited, was used for the survey. Installation of the geophysical and ancillary equipment was carried out by Aerodat. The survey aircraft was flown at a mean terrain clearance of 60 metres.

3.2 Equipment

3.2.1 VLF-EM System

The VLF-EM System was a Herz Totem 2A. This instrument measures the total field and quadrature components of two selected transmitters, preferably oriented at right angles to one another. The sensor was towed in a bird 15 metres below the helicopter. The transmitters monitored were NAA, Cutler, Maine and NSS, Annapolis, Maryland broadcasting at 24.0 kHz and 21.4 kHz respectively for the Line Station. NAA, Cutler, Maine, NSS, Annapolis, Maryland and NLK, Jim Creek, Washington broadcasting at 24.0 kHz, 21.4 kHz and 24.8 kHz respectively were used for the Orthogonal Station. Different stations were used for both the Line Station and Orthogonal Station because of intermittent signals, were not detected or because of station shutdowns.

3.2.2 Magnetometer

The magnetometer employed was a Scintrex Model VIW-2321 H8 cesium, optically pumped magnetometer sensor. The sensitivity of this instrument was 0.1 nanoTeslas at a 0.2 second sampling rate. The sensor was towed in a bird 15 metres below the helicopter.

3.2.3 Magnetic Base Station

An IFG-2 proton precession magnetometer was operated at the base of operations to record diurnal variations of the earth's magnetic field. The clock of the base station was synchronized with that of the airborne system to facilitate later correlation.

3.2.4 Radar Altimeter

A King Air KRA-10 radar altimeter was used to record terrain clearance. The output from the instrument is a linear function of altitude for maximum accuracy.

3.2.5 Tracking Camera

A Panasonic video tracking camera was used to record flight path on VHS video tape. The camera was operated in continuous mode and the fiducial numbers and time marks for cross reference to the analog and digital data were encoded on the video tape.

3.2.6 Analog Recorder

An RMS dot-matrix recorder was used to display the data during the survey. In addition to manual and time fiducials, the following data were recorded:

Channel	Input	Scale
PWRL	Power Line	60 Hz
VLT	VLF-EM Total Field, Line	2.5% /mm
VLQ	VLF-EM Quadrature, Line	2.5% /mm
VOT	VLF-EM Total Field, Ortho	2.5% /mm
VOQ	VLF-EM Quadrature, Ortho	2.5% /mm
RALT	Radar Altimeter	10 ft/mm
MAGF	Magnetometer, fine	2.5 nT/mm
MAGC	Magnetometer, coarse	25 nT/mm

3.2.7 Digital Recorder

A DGR 33 data system recorded the survey on magnetic tape. Information recorded was as follows:

Equipment	Recording Interval
VLF-EM	0.5 seconds
Magnetometer	0.1 seconds
Altimeter	0.5 seconds

3.2.8 Radar Positioning System

A Falcon 484 radar positioning system was used for both navigation and flight path recovery. Transponders located at fixed locations were interrogated several times per second and the ranges from these points to the helicopter were measured to an accuracy of about 5 metres. A navigational computer triangulates the position of the helicopter and provides the pilot with navigation information. The positional data was recorded on magnetic tape for subsequent flight path generation.

4. DATA PRESENTATION

4.1 Base Map

Two claim maps, numbers G-3994 and G-3997, at a scale of 1:20,000 indicate the boundary of the block surveyed, as well as the claims covered with both the magnetometer and VLF-EM airborne systems.

4.2 Total Field Magnetic Contours

The aeromagnetic data were corrected for diurnal variations by adjustment with the digitally recorded base station magnetic values. No correction for regional variation was applied. The corrected profile data were interpolated onto a regular grid at a 25 metre true scale interval using a cubic spline technique. The grid provided the basis for threading the presented contours at a 2 nanoTesla interval.

The contoured aeromagnetic data have been presented on a Cronaflex copy of the photomosaic base map.

4.3 VLF-EM Total Field Contours

The total field VLF-EM signals from the Orthogonal Stations, NSS, Annapolis, Maryland and NAA, Cutler, Maine, were gridded at a 20 metre interval and presented on Cronaflex copies of the photomosaic base maps, for each flight direction, along with fiducials and the flight lines.

5. INTERPRETATION

5.1 Geology

The airborne survey area is located in the northwestern part of the Archean Abitibi Greenstone Belt. All known rocks underlying the Night Hawk Lake claim block are Precambrian in age. In the immediate area of the large claim block, metavolcanic and metasedimentary rocks make up most of the stratigraphy and have been identified as belonging to the Tisdale Group. Towards the west central region, the underlying rocks have been identified as belonging to the Porcupine Group.

The northern and northeastern extremities of the claim block are believed to be underlain with the lower Tisdale Group sequence, thought to be correlatable with the Stoughton-Roquemaure Group in the Kirkland Lake area. This basal group is composed mainly of basaltic and peridotitic komatiites and magnesium-rich tholeiitic basalts.

Across the southern portions of the claim block and mostly within Night Hawk Lake is the overlying middle Tisdale Group. This overlying group is dominantly an iron-rich tholeiitic sequence and is interpreted to form the western extremity of the Kenojevis Group.

Towards the western region of the claim block and the west central portion of Cody Township, the rocks have been described as belonging to the Whitney Formation within the Porcupine Group. The basal portion of this sequence consists largely of siltstones, argillites and minor feldspathic wackes, and intermediate to mafic tuffs interlayered with minor siltstone in the upper part. The rocks underlying Poplar Point are believed to be felsic and mafic metavolcanics associated with the middle Tisdale Group.

There are two sets of diabase dykes within the claim block, basically north-south and east-northeast. The former structures are Early Precambrian olivine and quartz bearing diabase dykes. This diabase is massive, and weathers brown to orange-brown. There are also two large dykes of olivine diabase traversing across the middle of the claim block in an east-northeast direction and are interpreted as being Late Precambrian. This relationship is best seen in the middle of the claim block where an east-northeast dyke cuts through a north-south dyke.

Referring to Map 2222, it will be noted that several northeast-southwest and northwest-southeast trending structural faults traverse through the claim block. For the most part, the offsets of the diabase dykes is clear evidence of the faulting.

Economically, the Night Hawk Lake area has essentially been explored for gold because of its proximity to the Porcupine gold area. To the north of the large claim block, on North Peninsula, a considerable amount of exploration has been

carried out for gold with some success. Recently, it is believed that Pamorex Minerals Inc. has outlined approximately 1.59 million tons averaging 0.16 oz. gold per ton. To the northeast, on East Peninsula, the search for gold has also contributed to the exploration activity in the region. Towards the western portion of the claim block, near Poplar Point, minor amounts of chalcopyrite and sphalerite have been found within the felsic volcanics. However, there does not seem to be any great amounts. A concentrated exploration effort for base metals may result in a discovery.

5.2 Magnetics

The most notable magnetic features within the claim block are the two east-northeast magnetic trends that traverse through the middle of the area. They both display quite high intensities and tend to be rather wide, approximately 200 metres. These east-northeast trending dykes are interpreted to be the Late Precambrian olivine diabase dykes. There is also the second set of diabase dykes and these are the north-south trending set of dykes. They are the ones that are interpreted as being Early Precambrian Matatchewan olivine and quartz bearing diabase dykes. The most prominent ones are located towards the western portion of the claim block intruding the rocks of the Whitney Formation. There are other Matatchewan diabase dykes in other parts of the claim block as well.

Most of the claim block is contained in a region of generally low intensity magnetic background and this is believed to be related to the underlying mafic to

intermediate metavolcanics associated with both the Stoughton-Roquemaure Group and the Kenojevis Group. However, it is apparent that there is not much difference in the magnetic intensity between the two groups. There may be a slightly higher magnetic background for the Kenojevis Group rocks because it is dominantly an iron-rich tholeiitic sequence.

The high intensity magnetic background towards the northwestern portion of the claim block, near Goose Creek, is believed to be related to a group of komatiitic flows, in which ultramafic and mafic rocks dominate, and belonging to the basal sequence of the Tisdale Group.

A complete and comprehensive evaluation of the magnetic data will reveal further structures than what is shown on Map 2222. These will be important horizons as they are sometimes associated with the ore forming process in the Porcupine gold camp.

5.3 VLF-EM Total Field

The VLF-EM data has apparently not revealed much information, if any, within the claim block. It should be understood, of course, that the conductive nature from the lake bottom sediments of Night Hawk Lake, as well as from the overlying Barlow-Ojibway Formation, has impeded the penetration of the VLF through such an environment to the basement.

VLF-EM data was acquired from the Orthogonal Station in both a north-south and east-west flight direction over the claim block. In reference to the north-south flight direction, it will be noted that there was no VLF response, whatsoever, over the water of Night Hawk Lake. It was virtually flat. The one obvious feature is the correlation of VLF lows with islands in the lake, as well as over some locations on land. This phenomena seems to be quite evident near most islands in Night Hawk Lake towards the eastern portion of the claim block in Macklem Township. It is also noted towards the west, near Poplar Point. The writer suggests that this event is related to a thinning of the overlying conductive surficial material due to a protruding basement topography.

Towards the western portion of the claim block, in the vicinity of the north-south trending Early Precambrian diabase dykes, there is known to be a considerable amount of outcrops in this area. It is because of this and the resulting thinner layer of overburden, that there are a number of VLF lows. One, in fact, could correlate the VLF lows with the region of outcrops quite well.

The VLF data from the Orthogonal Station for the east-west flight direction display a very biased northwest-southeast trending phenomena. This is quite opposite to what the magnetics indicate and would tend to indicate then that there is no relationship at all with the basement lithologies. As mentioned earlier, for

the north-south VLF data, there seems to be a very subtle correlation between the VLF lows and higher regions of topography. This, it seems, is due to a thinning of the overlying conductive overburden.

5.4 Conclusion

The magnetic data presentation has apparent outlined the relatively non-magnetic sequences of the Tisdale Group. As mentioned earlier, there does not seem to be any obvious differences in the magnetics to distinguish between the two sequences within the Tisdale Group, the lower Stoughton-Roquemaure Formation and the middle Kenojevis Formation. Towards the extreme northwestern portion of the block, where Porcupine rocks are believed to outcrop, a closer look at the contact (magnetic flank) between the Porcupine Group and Tisdale Group rocks is suggested. To the north of the Destor-Porcupine Fault, which is to the north of this claim block, it is this contact that tends to be the favourable horizon for many of the gold bearing structures.

With respect to the VLF-EM data, it has apparently not revealed any signatures that one could relate to gold bearing structures within the basement rocks. Structurally, the VLF data may reveal fault zones, but this would only be possible after a much more intense assessment of the data.

Respectfully submitted,

R. J. de Carle

Robert J. de Carle
Consulting Geophysicist
for
AERODAT LIMITED
February 19, 1990

J8983

Qual 2.11556

APPENDIX I

REFERENCES

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Pyke, D.P.
1982: Geology of the Timmins Area, District of Cochrane; Ontario Geological Survey Report 219, 141 p. Accompanied by Map 2455.

Leahy, E.H.
1971: Geology of the Night Hawk Lake area, District of Cochrane; Ontario Department of Mines and Northern Affairs, GR96, 74p. Accompanied by Map 2222.

APPENDIX II

PERSONNEL

FIELD

Flown	December, 1989
Pilot	A. Sweet
Operator	P. Moore

OFFICE

Processing	M. Chong-Foo
Report	R. J. De Carle

APPENDIX III

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 years.

4. I have been an active member of the Society of Exploration Geophysicists since 1967 and hold memberships on 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 Pamorex Minerals Inc. from a review of the proprietary airborne geophysical survey flown by Aerodat Limited for Pamorex Minerals Inc. I have not personally visited the property.

6. I have no interest, direct or indirect, in the property described nor do I hold securities in Pamorex Minerals Inc.

Signed

R. J. de Carle

Palgrave, Ontario
February 19, 1990

Robert J. de Carle
Consulting Geophysicist
for
AERODAT LIMITED

APPENDIX IV

GENERAL INTERPRETATION

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

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 to 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.

Ontario

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Mining Lands Section
880 Bay Street, 3rd Floor
Toronto, Ontario
M5S 1Z8

Tel: (416) 965-4888

Your File: W9006.60314
Our File: 2.13139

June 25, 1990

Mining Recorder
Ministry of Northern Development & Mines
60 Wilson Avenue
TIMMINS, ONTARIO
P4N 2S7

Dear Sir/Madam:

Re: Geophysical (Electromagnetic and Magnetometer) Survey submitted on Mining Claims P 1127789 et al in Cody/Macklem Townships.

The enclosed statement of assessment work credits has been approved as of the above date. This approval replaces all previous approvals.

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

Yours sincerely,

W. R. Cowan
Provincial Manager, Mining Lands
Mines & Minerals Division

JS:zm
Encl:

cc: Mr. W. D. Tieman
Mining & Lands Commissioner
Toronto, Ontario

Pamorex Minerals Inc
Schumacher, Ontario

Doug Clark
Timmins, Ontario

Resident Geologist
TIMMINS, ONTARIO

Aerodat Ltd
Mississauga, Ontario

Ministry of Northern Development and Mines
Ontario

Technical Assessment Work Credits

File 2.13139

Date June 25, 1990

Mining Recorder's Report of Work No. W9006.60314

Recorded Holder
PAMOREX MINERALS INC.

Township or Area
CODY AND MACKLEM

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic 40 days	See Attached sheet
Magnetometer 40 days	
Radiometric ____ days	
Induced polarization ____ days	
Other ____ days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological ____ days	
Geochemical ____ days	
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 1127789 - 90

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; Geologocal - 40; Geochemical - 40; Section 77(19) - 60.

828 (85/12)

TWP	CLAIM #	MAG & VLF
ACKLEM	724599	20
ACKLEM	724600	20
ACKLEM	724601	20
ACKLEM	724602	20
ACKLEM	724603	20
ACKLEM	724604	20
CODY	724605	20
CODY	724606	20
CODY	724607	20
CODY	724608	20
CODY	724609	20
CODY	724610	20
CODY	724611	20
CODY	779926	20
CODY	779927	20
CODY	779928	20
ACKLEM	•849670	20
ACKLEM	867797	20
ACKLEM	867798	20
ACKLEM	867799	20
ACKLEM	867800	20
ACKLEM	868201	20
ACKLEM	868202	20
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ACKLEM	868220	20
ACKLEM	868221	20
ACKLEM	868222	20
ACKLEM	868223	20
ACKLEM	868224	20
ACKLEM	868225	20
ACKLEM	868226	20
ACKLEM	868227	20
ACKLEM	868228	20
CODY	•970001	80

TWP	CLAIM #	MAG & VLF
CODY	970002	80
CODY	970003	80
MACKLEM	995002	20
MACKLEM	995003	20
MACKLEM	995005	20
MACKLEM	995075	20
MACKLEM	995351	20
CODY	1025818	80
CODY	1025819	80
CODY	1025820	80
CODY	1025821	80
CODY	1025822	80
CODY	1025823	80
CODY	1025824	80
CODY	1025825	80
CODY	1025826	80
CODY	1025827	80
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CODY	1025829	80
CODY	1025830	80
CODY	1025831	80
CODY	1025832	80
CODY	1025833	80
CODY	1025834	80
CODY	1025835	80
CODY	1025836	80
CODY	1025837	80
CODY	1025838	80
CODY	1025839	80
CODY	1025840	80
CODY	1025841	80
CODY	1025842	80
CODY	1025843	80
CODY	1025844	80
CODY	1025847	80
CODY	1025848	80
CODY	1025849	80
CODY	1025850	80
CODY	1025851	80
CODY	1025852	80
CODY	1025867	80
CODY	1026095	80
CODY	1026096	80
CODY	1026097	80
CODY	1026098	80
CODY	1026099	80
CODY	1029586	20
CODY	1030718	80

4

TWP	CLAIM #	MAG & VLF
CODY	1030719	80
CODY	1030720	80
CODY	1030721	80
CODY	1030722	80
CODY	1030723	80
CODY	1030724	80
CODY	1030725	80
CODY	1030726	80
CODY	1030727	80
CODY	1031177	80
CODY	1031178	80
CODY	1031180	80
CODY	1031181	80
CODY	1031183	80
CODY	1031184	80
CODY	1031185	80
CODY	1031186	80
CODY	1031187	80
CODY	1031188	80
CODY	1031189	80
CODY	1031190	80
CODY	1031191	80
CODY	1031192	80
CODY	1031193	80
CODY	1031194	80
CODY	1031195	80
CODY	1031217	80
CODY	1031218	80
CODY	1031219	80
CODY	1031220	80
CODY	1031221	80
CODY	1031222	80
CODY	1031223	80
CODY	1031224	80
CODY	1031225	80
CODY	1031226	80
CODY	1031227	80
CODY	1031228	80
CODY	1031229	80
CODY	1031230	80
CODY	1031231	80
CODY	1031232	80
CODY	1031233	80
CODY	1031234	80
CODY	1031235	80
CODY	1031236	80
CODY	1031237	80
CODY	1031238	80

TWP	CLAIM #	MAG & VLF
CODY	1031239	80
CODY	1031240	80
CODY	1031241	80
CODY	1031242	80
CODY	1031243	80
CODY	1031244	80
CODY	1031245	80
CODY	1031246	80
CODY	1031247	80
CODY	1031248	80
CODY	1031249	80
CODY	1031250	80
CODY	1031251	80

Ministry of Northern Development and Mines
Ontario

LAN W9006-60314

Report of Work (Geophysical, Geological and Geochemical Surveys)

PAGE 1 OF 6

Mining Act

Instructions
- Please type or print.
- Refer to Section 77, the Mining Act for assessment work requirements and maximum credits allowed per survey type.
- If number of mining claims traversed exceeds space on this form, attach a list.
- Technical Reports and maps in duplicate should be submitted to Mining Lands Section, Mineral Development and Lands Branch.

Type of Survey(s)	Mining Division	Township or Area
Airborne Magnetics & VLF	Porcupine	Cody/Macklem Townships

Recorded Holder(s)	Prospector's Licence No.
Pamorex Minerals Inc. 2.13139	T-1925
Address	**Telephone No.**
P.O. Bag 2010, Schumacher, Ontario, P4N 7X7	267-1141
Survey Company	
Aerodat Ltd., 3883 Nashua Dr., Mississauga, Ontario L4V 1R3 (416)-671-2446	
Name and Address of Author (of Geo-Technical Report)	**Date of Survey (from & to)**
Robert de Carle, Geodatem Airborne Consultants, Palgrave,	27 11 89 14 12 89

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)	• Other	
	Geological	
	Geochemical	

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

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

Total miles flown over claim(s): 819 Km Mag/VLF

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Mining Claim Prefix	Mining Claim Number	Mining Claim Prefix	Mining Claim Number
see attached schedule of mining claims:					

RECEIVED
MAY 01 1990
MINING LANDS SECTION

RECORDED
FEB 14 1990

Total number of mining claims covered by this report of work: ~~322~~ 324 NDC 159

Date: Feb 8/90
Recorded Holder or Agent (Signature): Doug Clark

Certification Verifying Report of Work

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

Name and Address of Person Certifying: Doug Clark 40 Jubilee Ave., East, Apt. 21 Timmins, Ontario P4N 5W3

Telephone No.	Date	Certified By (Signature)
267-5295	Feb 8/90	Doug Clark

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
9540	FEB 14/90	Mining Recorder
	Date Approved as Recorded	Provincial Manager, Mining Lands

Received Stamp
PORCUPINE MINING DIVISION
RECEIVED
FEB 14 1990

0302 (89/06)

...y of
...nern Development
...d Mines

- Please type or print.
- Refer to Section 77, the Mining Act for assessment work requirements and maximum credits allowed per survey type.
- If number of mining claims traversed exceeds space on this form, attach a list.
- Technical Reports and maps in duplicate should be submitted to Mining Lands Section, Mineral Development and Lands Branch.

Report of Work (Geophysical, Geological and Geochemical Surveys)

Mining Act

Type of Survey(s): Airborne Magnetic + VLF	Mining Division: Porcupine	Township or Area: Cody (Northwest)
Recorded Holder(s): Amorex Minerals Inc.		Prospector's Licence No.: T-1925
Address: P.O. Bag 2010, Schumacher, Ont		Telephone No.: 267-1141
Survey Company: Geodat Ltd., 3883 Nashua Dr, Mississauga, Ont		
Name and Address of Author (of Geo Technical Report): Bob de Carle, Geodatem Airborne Con., Palgrave		Date of Survey (from & to): From 27 11 89 To 14 12 89

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)	- Other	
	Geological	
	Geochemical	

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

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic 40	~~80~~
	Magnetometer 40	~~80~~
	Other	

Total miles flown over claim(s): 4.8 km

Date: Feb 9/90 Recorded Holder or Agent (Signature): Doug Clark

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Mining Claim Prefix	Mining Claim Number	Mining Claim Prefix	Mining Claim Number
P	1127789				
P	1127790				

RECEIVED
MAY 01 1990
MINING LANDS SECTION

Total number of mining claims covered by this report of work: 2

Certification Verifying Report of Work

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

Name and Address of Person Certifying: Doug Clark 40 Jubilee Ave East, Timmins, Ont

P4N 5W3

Telephone No.: 267-5295 Date: Feb 9/90 Certified By (Signature): Doug Clark

Received Stamp

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
	Date Approved as Recorded	Provincial Manager, Mining Lands

PAGE 3 OF 6

TWP	CLAIM #	MAG & VLF
MACKLEM	724599	20
MACKLEM	724600	20
MACKLEM	724601	20
MACKLEM	724602	20
MACKLEM	724603	20
MACKLEM	724604	20
CODY	724605	20
CODY	724606	20
CODY	724607	20
CODY	724608	20
CODY	724609	20
CODY	724610	20
CODY	724611	20
CODY	779926	20
CODY	779927	20
CODY	779928	20
MACKLEM	•849670	20
MACKLEM	867797	20
MACKLEM	867798	20
MACKLEM	867799	20
MACKLEM	867800	20
MACKLEM	868201	20
MACKLEM	868202	20
MACKLEM	868203	20
MACKLEM	868204	20
MACKLEM	868205	20
MACKLEM	868206	20
MACKLEM	868207	20
MACKLEM	868208	20
MACKLEM	868209	20
MACKLEM	868210	20
MACKLEM	868211	20
MACKLEM	868213	20
MACKLEM	868214	20
MACKLEM	868215	20
MACKLEM	868216	20
MACKLEM	868218	20
MACKLEM	868219	20
MACKLEM	868220	20
MACKLEM	868221	20
MACKLEM	868222	20
MACKLEM	868223	20
MACKLEM	868224	20
MACKLEM	868225	20
MACKLEM	868226	20
MACKLEM	868227	20
MACKLEM	868228	20
CODY	•970001	80

PAGE 4 of 6

TWP	CLAIM #	MAG & VLF
CODY	970002	80
CODY	970003	80
MACKLEM	995002	20
MACKLEM	995003	20
MACKLEM	995005	20
MACKLEM	995075	20
MACKLEM	995351	20
CODY	1025818	80
CODY	1025819	80
CODY	1025820	80
CODY	1025821	80
CODY	1025822	80
CODY	1025823	80
CODY	1025824	80
CODY	1025825	80
CODY	1025826	80
CODY	1025827	80
CODY	1025828	80
CODY	1025829	80
CODY	1025830	80
CODY	1025831	80
CODY	1025832	80
CODY	1025833	80
CODY	1025834	80
CODY	1025835	80
CODY	1025836	80
CODY	1025837	80
CODY	1025838	80
CODY	1025839	80
CODY	1025840	80
CODY	1025841	80
CODY	1025842	80
CODY	1025843	80
CODY	1025844	80
CODY	1025847	80
CODY	1025848	80
CODY	1025849	80
CODY	1025850	80
CODY	1025851	80
CODY	1025852	80
CODY	1025867	80
CODY	1026095	80
CODY	1026096	80
CODY	1026097	80
CODY	1026098	80
CODY	1026099	80
CODY	1029586	20
CODY	1030718	80

PAGE 5 OF 6

TWP	CLAIM #	MAG & VLF
CODY	1030719	80
CODY	1030720	80
CODY	1030721	80
CODY	1030722	80
CODY	1030723	80
CODY	1030724	80
CODY	1030725	80
CODY	1030726	80
CODY	1030727	80
CODY	1031177	80
CODY	1031178	80
CODY	1031180	80
CODY	1031181	80
CODY	1031183	80
CODY	1031184	80
CODY	1031185	80
CODY	1031186	80
CODY	1031187	80
CODY	1031188	80
CODY	1031189	80
CODY	1031190	80
CODY	1031191	80
CODY	1031192	80
CODY	1031193	80
CODY	1031194	80
CODY	1031195	80
CODY	1031217	80
CODY	1031218	80
CODY	1031219	80
CODY	1031220	80
CODY	1031221	80
CODY	1031222	80
CODY	1031223	80
CODY	1031224	80
CODY	1031225	80
CODY	1031226	80
CODY	1031227	80
CODY	1031228	80
CODY	1031229	80
CODY	1031230	80
CODY	1031231	80
CODY	1031232	80
CODY	1031233	80
CODY	1031234	80
CODY	1031235	80
CODY	1031236	80
CODY	1031237	80
CODY	1031238	

PAGE 6 OF 6

TWP	CLAIM #	MAG & VLF
CODY	1031239	80
CODY	1031240	80
CODY	1031241	80
CODY	1031242	80
CODY	1031243	80
CODY	1031244	80
CODY	1031245	80
CODY	1031246	80
CODY	1031247	80
CODY	1031248	80
CODY	1031249	80
CODY	1031250	80
CODY	1031251	80
MACKLEM	1115194	40
MACKLEM	1115195	80
CODY	1115200	80
CODY	1115201	80
CODY	1115202	80
CODY	1115203	80
CODY	1115204	80
CODY	1115205	80
MACKLEM	1116270	80
MACKLEM	1126552	80
MACKLEM	1126561	80
MACKLEM	1126562	80
MACKLEM	1126563	80
MACKLEM	1126564	80
MACKLEM	1126565	80
MACKLEM	1126566	80
MACKLEM	1126568	80
MACKLEM	1126569	80
MACKLEM	1127495	40
MACKLEM	1127496	80
MACKLEM	1127497	80
MACKLEM	1127498	80
MACKLEM	1127499	80
CODY	1127500	80
CODY	1127501	80
CODY	1128378	40
CODY	1128379	80
CODY	1128380	80
CODY	1128381	80
CODY	1128382	80
CODY	1128383	80
CODY	1128384	80
CODY	1128385	80
CODY	1128386	80
CODY	1128387	80

OMITTED FROM REPORT; TO BE COVERED BY AIRBORNE CERTIFICATE

APRIL 10/90

RECEIVED

MAY 01 1990

MINING LANDS SECTION

GEODATEM

GEODATEM AIRBORNE CONSULTANTS
28 Westview Crescent
Palgrave, Ontario
L0N 1P0
(416) 880-4515
Fax: (416) 880-1517

2.13139

February 27, 1990

Mining Lands Section
Ministry of Northern Development
and Mines
3rd Floor
880 Bay Street
Toronto, Ontario
M5S 1Z8

Dear Sirs:

These two (2) reports of an airborne magnetic and VLF Survey carried out in the Night Hawk Lake area near Timmins, Ontario, are being submitted on behalf of Pamorex Minerals Inc. and associated company Giant Yellowknife Mines Limited.

The primary benefactor of this assessment filing should be with Pamorex Minerals Inc., even though the company name on the map legend indicates Giant Yellowknife Mines Ltd., which is an associated company of Pamorex.

If you have any questions on the above, please do not hesitate to contact me.

Yours truly,

R.J. de Carle

Robert J. deCarle
Consulting Geophysicist

MAP SYMBOLOGY

Aerial Cableway, Boundary, Bridge, Building, Chimney, Cliff, Pit, Pile, Contours, Control Points, Culvert, Falls, Fence, Hedge, Wall, Feature Outline, Flooded Land, Lock, Marsh or Swamp, Mast, Mine Head Frame, Outcrop

Pipeline, Railroad, Road, Rapids, Reservoir, River, Stream, Canal, Rock, Shoal, 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
(R1)	Site Preparation	05/02/83		77094 V 6

(R2) ~~MINING AND SURFACE RIGHTS WITHDRAWN UNDER SECTION 36 OF THE MINING ACT RSO 1980 ORDER NRW 10/85 DATED MARCH 22/85.~~

MINING AND SURFACE RIGHTS REOPENED, JUNE 6, 1989 ORDER #O-P 5/89 NF

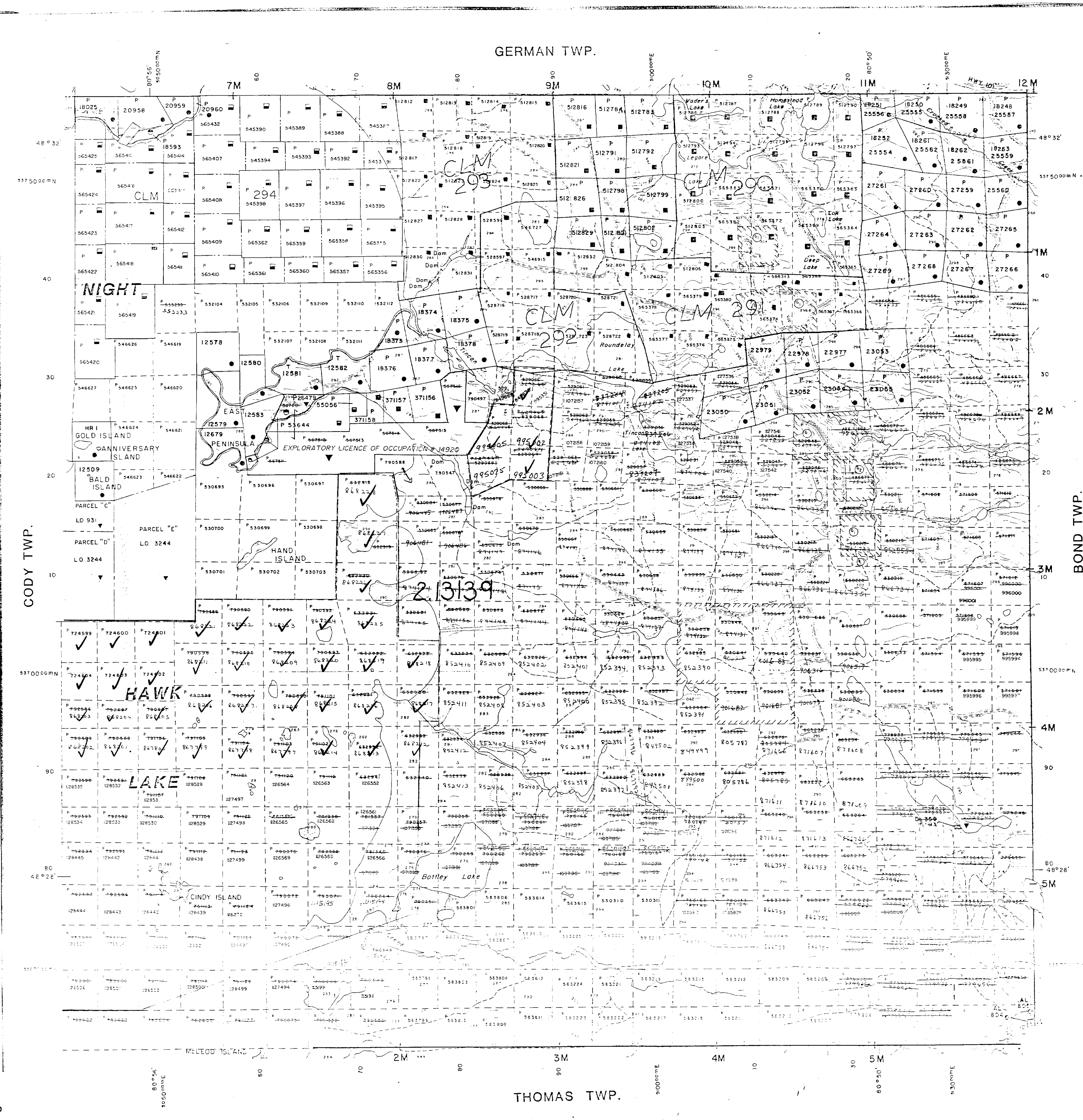
EXPLORATORY LICENCE OF OCCUPATION #14920 ISSUED JULY 6 1989 ORDER #O-P 5/89 NF

SAND and GRAVEL

(G1) GRAVEL FILE 105381

(G2) M.T.C. PIT 1121

(G) QUARRY PERMIT



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	(R)
CANCELLED	⊗
SAND & GRAVEL	(S)

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

Reserve flooding rights on Night Hawk Lake to Ontario Hydro to elevation 903·5', T & N.O. Ry. datum.

PORCUPINE MINING DIVISION RECEIVED JAN 4 1990

Rec'd Jan 23 '85

TOWNSHIP

MACKLEM

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

REVISED

Number G-3997

42A10SW0261 2.13139 MACKLEM

200

MAP SYMBOLOGY

Aerial Cableway
Boundary
International
Interprovincial
District, Township Indian Reserve
Escarpments
Lot, Concession
Approximate
Park Boundary
Bridge
Road, Railroad
Building
Chimney
Cliff, Pit, Pile
Contours
Intermediate
Approximate
Depression
Control Points
Horizontal
Vertical
Culvert
Falls
Double line river
Fence, Hedge, Wall
Feature Outline (Construction features, etc.)
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 of doubtful maintenance or significant driveway)
Trail, Bush Road (portage sleigh)
Rapids
Double line river with multiple rapids
Double line river with multiple rapids
Reservoir
River, Stream, Canal
Approximate
Intermittent
Direction of flow
Rock
Significant
Shoal
Spot Elevation (Base elevations)
Tower
Transmission Line
Poles
Pylons
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
(R2)	W. 53/76	10/9/76	S.R.O.	16539

(R2) MINING AND SURFACE RIGHTS WITHDRAWN FROM PROSPECTING, STAKING, SALE OR LEASE, SECTION 36 THE MINING ACT RSO 1980

42A10SW8261 2.13139 MACKLEM

210

MATHESON TWP.

WHITNEY TWP.

MACKLEM TWP.

CARMAN TWP.

Romo Lake
Squaw Island
Turn Islands
Night Hawk Lake
Block "D"
L.O. 3244
Powder Island
Pine Island
Deadman Island
Callihan Island
Moose Island
Camp Island
Burn Island
Northeast Peninsula
Parcel "A"
L.O. 931
Parcel "C"
L.O. 931
Water Lot No. 17
L.O. 10759
Cemetery Point
Indian Burial Ground
Surface Rights Reserved
Hwy 803

2.13139

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.

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

SCALE 1:20 000
GRID ZONE : 17

NOTES

THE WHOLE OF MOOSE ISLAND IS ATTACHED TO THE TOWNSHIP OF CODY. (FILE 23642)

FLOODING RIGHTS RESERVED TO ELEVATION 903.5' (T.B.M.O. RAILWAY DATUM) ON NIGHT HAWK LAKE AND THAT PORTION OF THE FREDERICK HOUSE RIVER BETWEEN NIGHT HAWK LAKE AND FREDERICK HOUSE LAKE TO ONTARIO HYDRO

TOWNSHIP
CODY

M.N.R. ADMINISTRATIVE DISTRICT

MINING DIVISION
PORCUPINE

LAND TITLES / REGISTRY DIVISION
COCHRANE

Ontario Ministry of Natural Resources Management Branch

ORIGINAL COMPILATION JULY 1984
REVISED
Number G-3994

MATHESON TWP.

WHITNEY TWP.

MACKLEM TWP.

CARMAN TWP.

NIGHT HAWK LAKE

AUER ISLAND

CALLIHAN ISLAND

POWER ISLAND

CAMP ISLAND

MOOSE ISLAND

Part of CARMAN TWP.

1127790
1127789
1128408 1128409
1128410 1128411 1128418 1128419 1128420
1128389 1128388 1128378 1128379 1128412 1128413 1128421 1128422 1128423
1128390 1128387 1128380 1128414 1128415 1128424 1128425 1128426
1128391 1128386 1128381 1128416 1128417 1031251 1128427 1025838
1129392 1128385 1128382 1031248 1031249 1031250 1128428 1025839
1128384 1128383 1031231 1031247 1031246 1031245 1025847 1025840
1031229 1031230 1031242 1031243 1031244 1025848 1025841
1031228 1031225 1031224 1031223 1031241 1031240 1031239 1025849 1025842
1031227 1031226 1031222 1031221 1031236 1031237 1031238 1025850 1025843
1031218 1031217 1030726 1030727 1031232 1025852 1025867 1026097 1026098 1031178 1031180
1030725 1030724 1030723 1030720 1030719 1026096 1026099 1031177 1031181
1030722 1030721 1030718 1026095 970001 1128407 1128462 1128463 1128464 1128465 1128466 1128472 1128473 1128474 1128475 1128476 1128477
1128393 1128394 1128395 1128398 1128399 1128400 1128467 1128468 1128469 1128470 1128471 1128478 1128479 1128480 1128481 1128482 1128483
1128396 1128397 1128433 1128401 1128402 1128403 1128609 1128610 1128508 1128509 1128510 1128538 1128539 1128540 1128541 1128542 1128543
1115200 1115202 1115204 1128434 1128435 1128404 1128405 1128406 1128611 1128612 1128613 1128512 1128511 1128544 1128545 1128546 1128547 1127500 1127501
1115201 1115203 1115205 1128436 1128437
1025823 1025818
1025832 1025828 1025824 1025819
1025833 1025829 1025825 1025820
1025834 1025830 1025826 1025821
1025835 1025831 1025827 1025822
1025836
1025837
1025851
970002
779926 779927 779928 724611 724610 724609 724608 724607 724606 724605
1031184 1031185 1031190 1031191 1031194 1031195 1128446 1128447 1128448 1128449
1031183 1031186 1031189 1031192 1031193 1128458 1128457 1128454 1128453 1128450
970003 1031187 1031188 1128461 1128460 1128459 1128456 1128455 1128452 1128451
1128491 1128492 1128493 1128494 1128495
1128496
1128497
525990
525988
1029586

48° 32'
537 50 00 mN
40
30
20
10
537 00 00 mN
90
80
48° 28'
536 70 00 mN
VI
V
IV
III
II
I
60
50
49 50 00 mE
81° 04'
70
80
90
50 00 00 mE
10
20
80° 58'
30
50 40 00 mE

RECEIVED
MAR 08 1990
MINING LANDS SECTION

TRACED FROM DRAWING No.
G-3994

TOWNSHIP
CODY

M.N.R. ADMINISTRATIVE DISTRICT
TIMMINS

MINING DIVISION
PORCUPINE

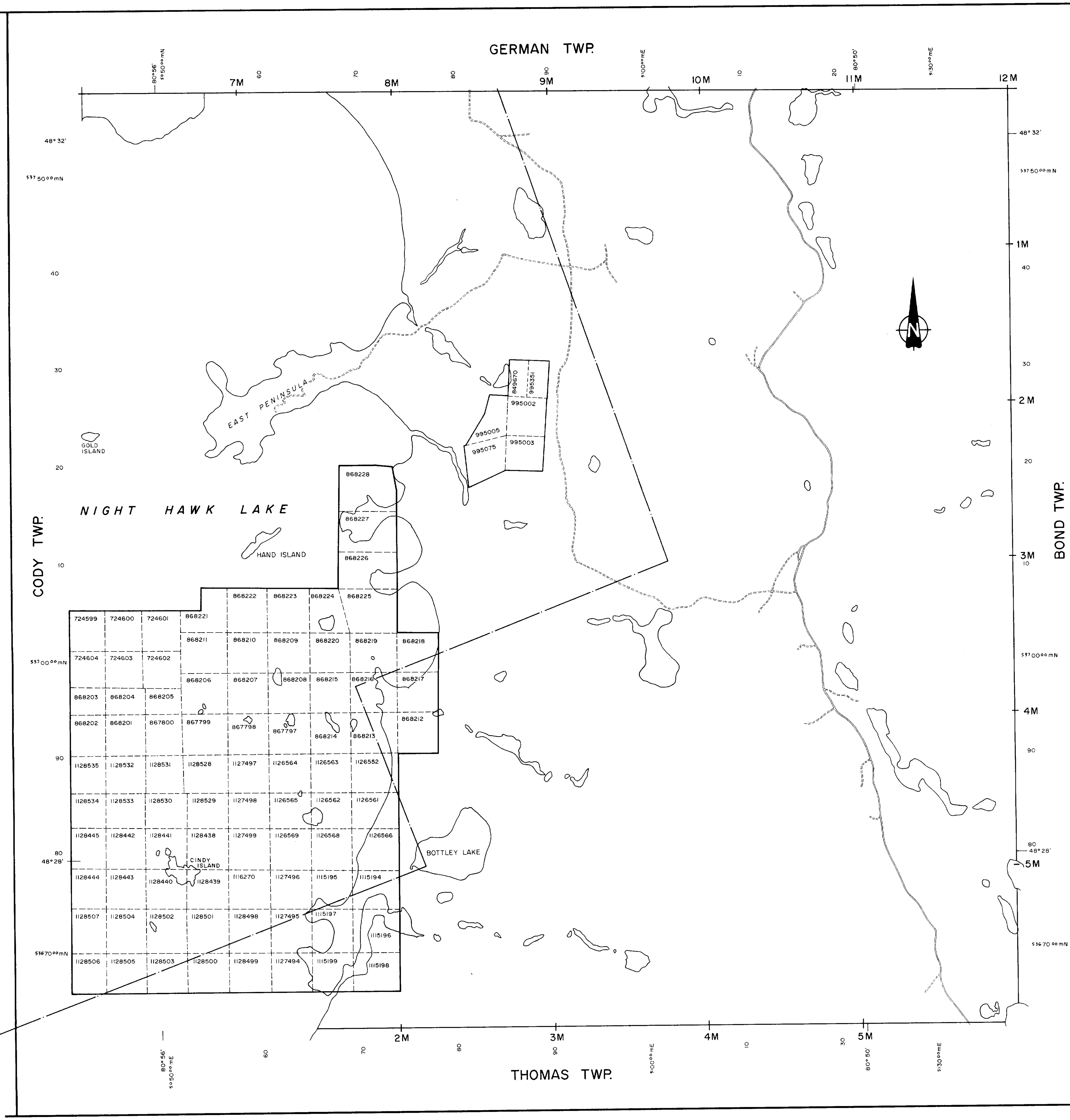
LAND TITLES / REGISTRY DIVISION
COCHRANE 2.13139

PAMOREX MINERALS INC.

SCALE 1:20000 m

DATE FEB. 27, 1990
MSL

42A10SW0261 2.13139 MACKLEM



RECEIVED
MAR 08 1990
MINING LANDS SECTION

TRACED FROM
DRAWING No.
G-3997

TOWNSHIP
MACKLEM

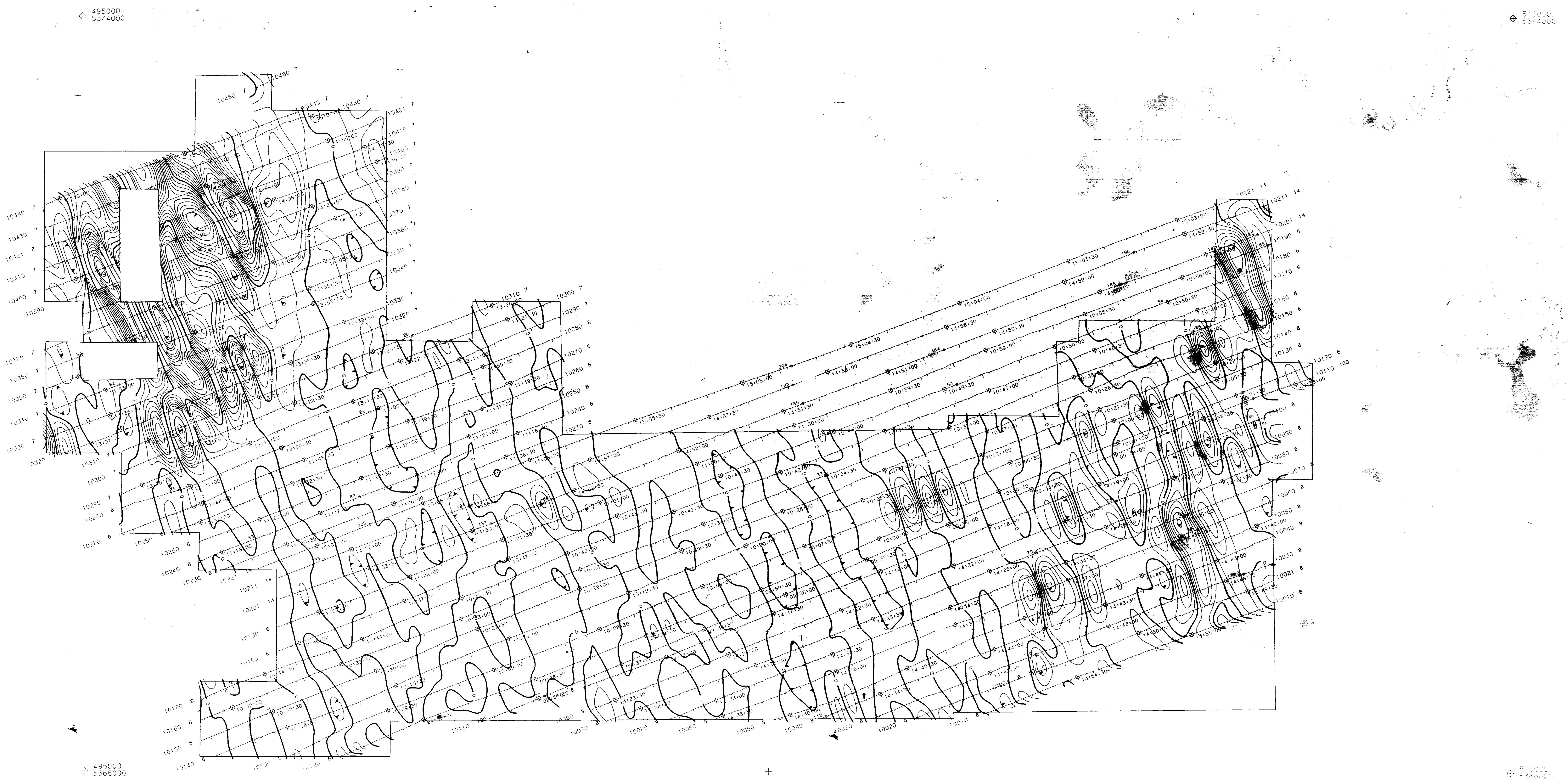
M.N.R. ADMINISTRATIVE DISTRICT
TIMMINS
MINING DIVISION
PORCUPINE
LAND TITLES / REGISTRY DIVISION
COCHRANE 2.13139

PAMOREX MINERALS INC.

SCALE 1:20000m
DATE FEB. 28, 1990
MSL

42A10SW0261 2.13139 MACKLEM

230



Flight Path

Navigation and recovery using Motorola Mini-Ranger (MRS III) radar navigation system.

Average terrain clearance 60m
Average 70 degree line spacing 200m
Average 160 degree line spacing 100m

VLF-EM

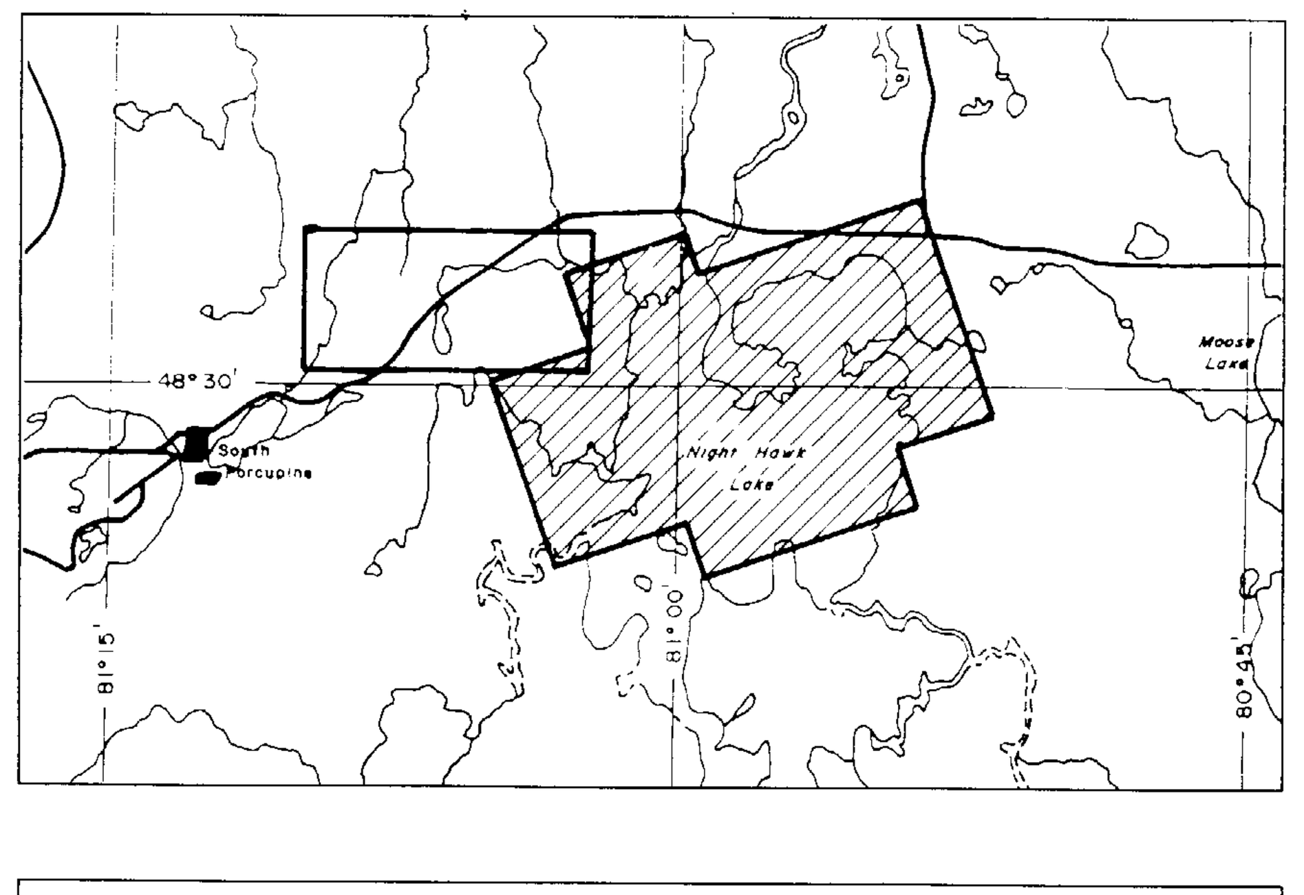
VLF-EM Total Field Intensity in percent for ORTHO station.

FLTS 5-9,13,14 : NSS (21.4 kHz) Annapolis, Maryland
FLTS 10-12,100 : NLK (24.8 kHz) Seattle, Washington

Sensor elevation 45m

Map contours are multiples of those listed below

1.00 %
5.00 %
25.0 %



GIANT YELLOWKNIFE MINES LTD.

VLF-EM TOTAL FIELD CONTOURS

2.13139

NIGHT HAWK LAKE BLOCK

ONTARIO

SCALE 1:20,000

0 660 1320 2640 5280 Feet

0 200 400 1000 2000 Metres

AERODAT LIMITED

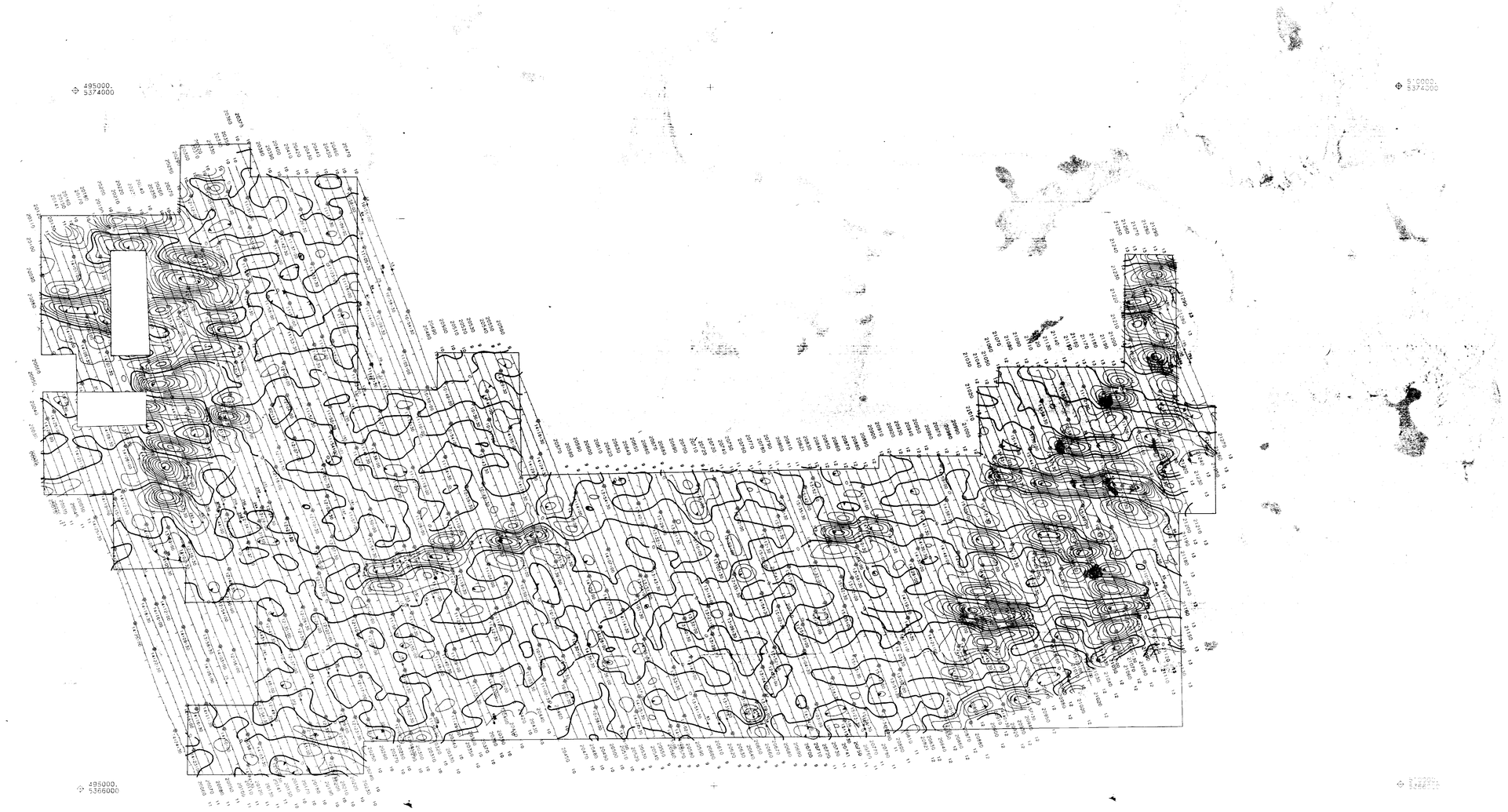
DATE: DEC 1989

NTS NO: 42 A

MAP NO: 2b

J8983A

240



N

Flight Path

Navigation and recovery using Motorola Mini-Ranger (MRS III) radar navigation system.

Average terrain clearance 60m
Average 70 degree line spacing 200m
Average 160 degree line spacing 100m

VLF-EM

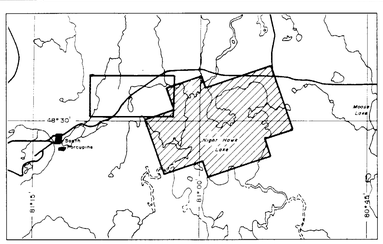
VLF-EM Total Field intensity in percent for ORTHO station.

FLTS 5-9,13,14 : NSS (21.4 kHz) Annapolis, Maryland
FLTS 10-12,100 : NLK (24.8 kHz) Seattle, Washington

Sensor elevation 45m

Map contours are multiples of those listed below

1.00 %
5.00 %
25.0 %



GIANT YELLOWKNIFE MINES LTD.

VLF-EM TOTAL FIELD CONTOURS

2.13139

NIGHT HAWK LAKE BLOCK

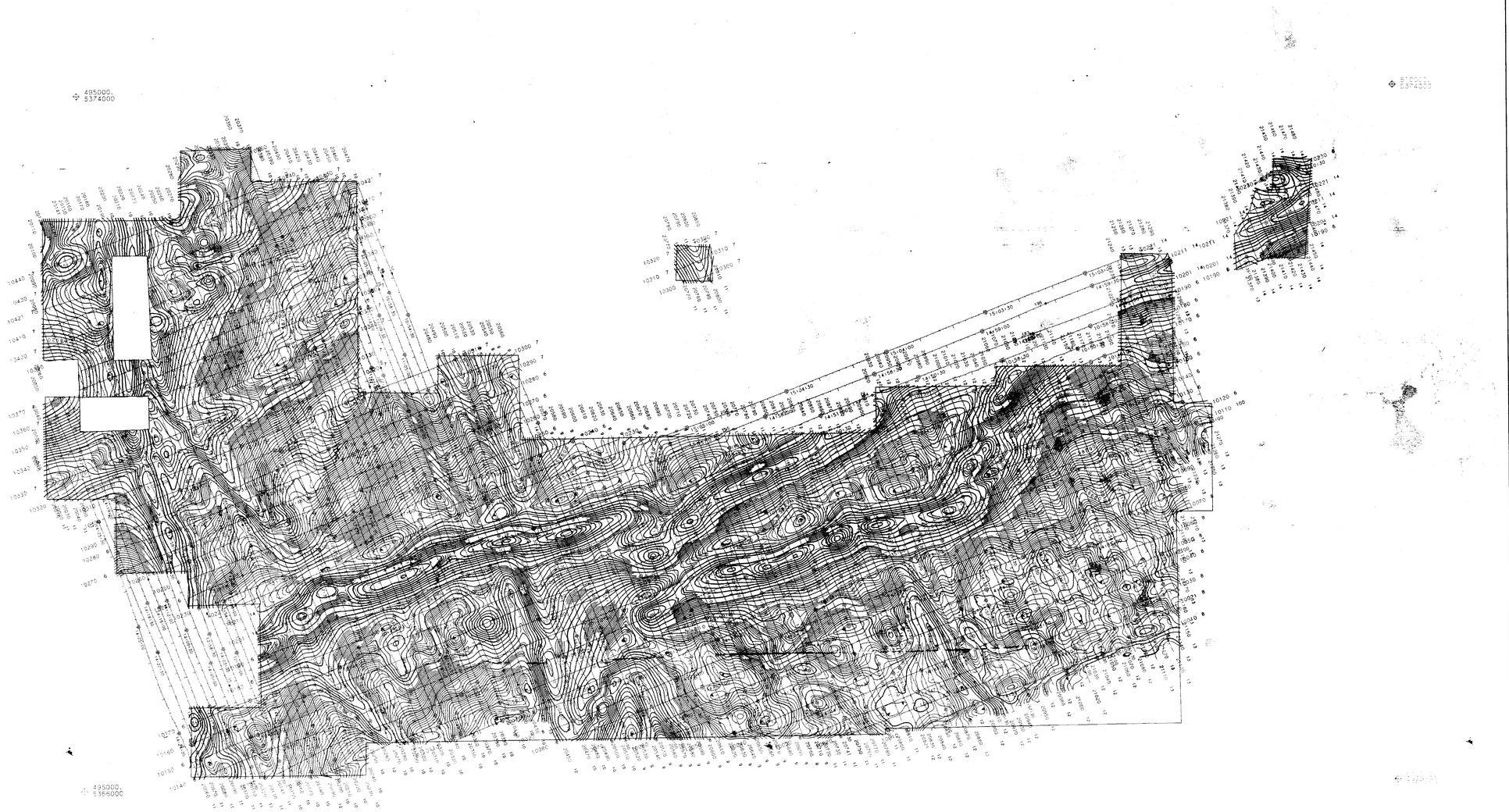
ONTARIO

SCALE 1:20,000

0 660 1320 2640 5280 Feet
0 200 400 1000 2000 Metres

AERODAT LIMITED

DATE: DEC 1989
NTS No: 42 A
MAP No: 2a
J8983A



Flight Path

Navigation and recovery using Motorola Mini-Ranger (MRS III) radar navigation system.

Average terrain clearance 60m
Average 70 degree line spacing 200m
Average 160 degree line spacing 100m

Magnetics

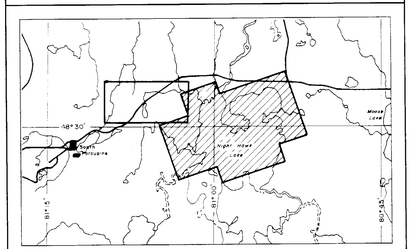
Total Field Magnetic Intensity Contours in nT.

Cesium high sensitivity magnetometer.

Sensor elevation 45m

Map contours are multiples of those listed below

———	2 nT
———	10 nT
———	50 nT
———	250 nT
———	1000 nT



GIANT YELLOWKNIFE MINES LTD.

TOTAL FIELD MAGNETIC CONTOURS
2.13130

NIGHT HAWK LAKE BLOCK

ONTARIO

SCALE 1:20,000

0 660 1320 2640 5280 Feet
0 200 400 1000 2000 Metres

AERODAT LIMITED

DATE: DEC 1989
NTS No: 42 A
MAP No: 1 J8983A