REPORT ON

AIRBORNE GEOPHYSICAL SURVEYS, KENOGAMING TOWNSHIP PROPERTY ONTARIO

for

BEARCAT EXPLORATIONS LTD.

Qual 2.1310

Toronto, Ontario
February 6, 1984

W.E. Brereton, P.Eng.
MPH Consulting Limited

SUMMARY

An airborne geophysical survey flown by Dighem Ltd. consisting of EM, magnetics and VLF has recently been carried out on the Kenogaming Township gold property of Bearcat Explorations Ltd.

The Bearcat property is situated within a major felsic volcanic pile in the northeast extremity of the Swayze greenstone belt in northeastern Ontario. It also encompasses the old Dunvegan gold-zinc and Jonsmith gold prospects.

Four east-west VLF anomalous zones transect the property. These coincide in part with airborne magnetic anomalies. The VLF trends are interpreted to represent weakly conductive zones of shearing associated with both altered ultramafics and felsic pyroclastics.

A modest program of ground geochemical surveying, prospecting and geological investigations at a cost of $25,000 is proposed to test airborne geophysical targets and further evaluate the overall gold potential of the claims.

TABLE OF CONTENTS

1.0 INTRODUCTION

This report describes the results of recently completed airborne geophysical surveys on the Bearcat Explorations Ltd. Kenogaming Township gold prospect, Swayze gold area, Ontario.

Airborne surveying was carried out by Dighem Ltd. of Toronto on behalf of Bearcat and consisted of airborne electromagnetics, magnetics and VLF-electromagnetics.

Flight line spacing was 200m with a north-south flight direction.

The AS-350 turbine helicopter flew at an average airspeed of 110 km/hr with an EM bird height of approximately 30m. Ancillary equipment consisted of a Sonotec PMH 5010 magnetometer with its bird at an average height of 45m, a Sperry radio altimeter, a Geocam sequence camera, an RMS GR-33 digital graphics recorder, a Sonotec SDS 1200 digital data acquisition system, a DigiData 1640 9-track 800-bpi magnetic tape recorder and a Totem 2A VLF. The analog equipment recorded four channels of EM data at approximately 900 Hz, two channels of EM data at approximately 2700 Hz, two ambient EM noise channels (for the coaxial and coplanar receivers), two channels of VLF data and a channel of radio altitude. The digital equipment recorded the EM data with a sensitivity of 0.2 ppm and the magnetic field to one nT (i.e., one gamma).

Appendix I provides details on the data channels, their respective sensitivities, and the flight path recovery procedure. Noise levels of less than 2 ppm are generally maintained for wind speeds up to 35 km/hr. Higher winds may cause the system to be grounded because excessive bird swinging produced difficulties in flying the helicopter. The swinging results from the 5 m^2 of area which is presented by the bird to broadside gusts. The DIGHEM system nevertheless can be flown under wind conditions that seriously degrade other AEM systems.

Appendix 2 presents Technical Data Statements in respect of assessment credits on claims covered by the surveying.

2.0 PROPERTY

The property consists of 30 unpatented mining claims in the Porcupine Mining Division of Ontario.

The claims are numbered as follows:

Claim Numbers	Recording Date
P652688-692 inclusive	July 16, 1982
P652695-697 inclusive	August 13, 1982
P653237-256 inclusive	August 13, 1982
P652800	August 13, 1982
P652693	August 13, 1982

The property encompases 1,200 acres more or less.

3.0 LOCATION, ACCESS AND INFRASTRUCTURE

The property is centred approximately 75 km southwest of the town of Timmins in northeastern Ontario (Figure 1).

Access is relatively good. Highway 101 West passes 13 km to the north of the claim group.

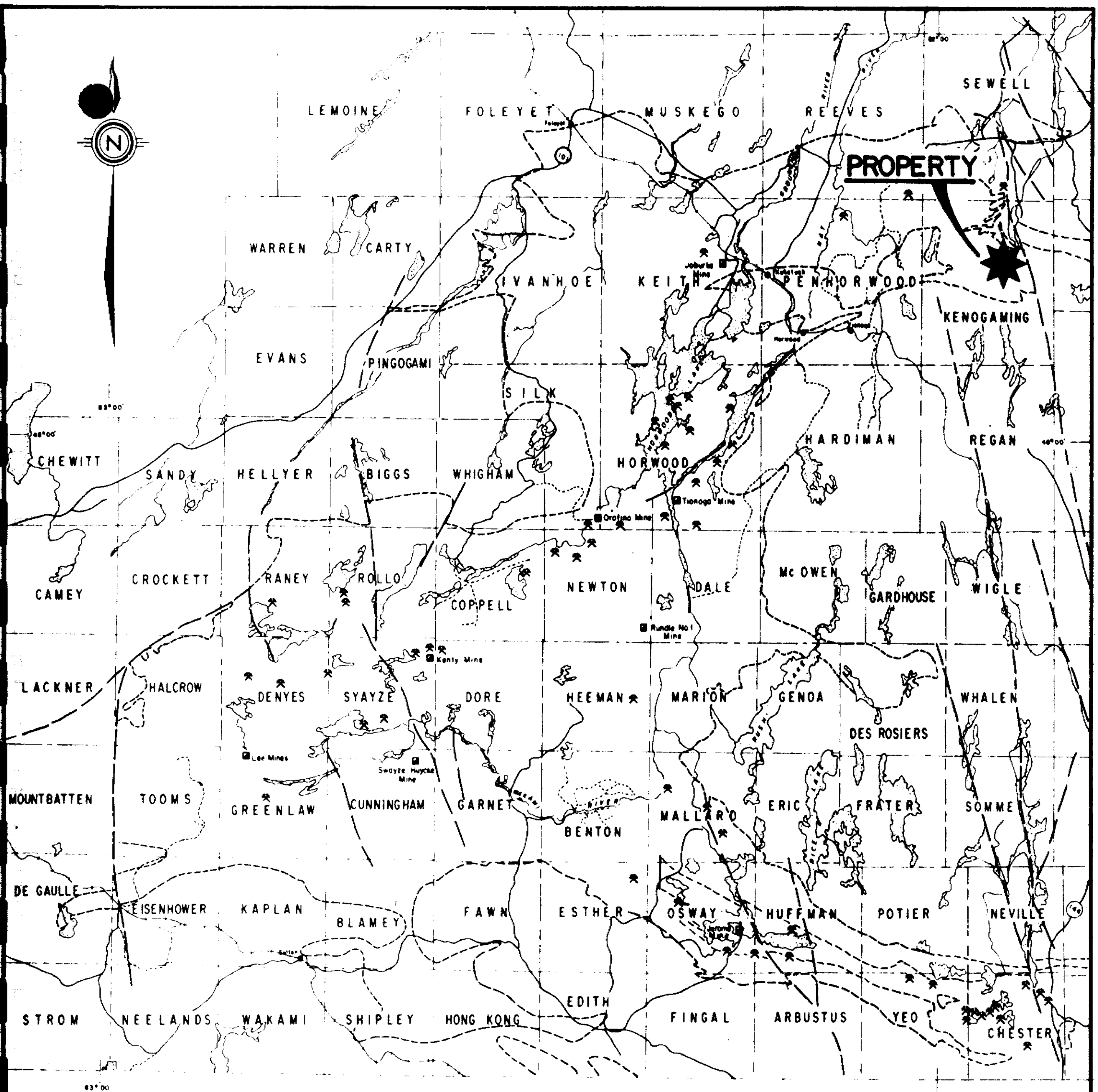
New, good quality gravel roads lead from Highway 101 to the south through the general Kenogaming - Penhorwood area. Numerous subsidiary logging roads extend off these main access roads. One of these leads directly through the Bearcat property as indicated on the accompanying airborne survey map.

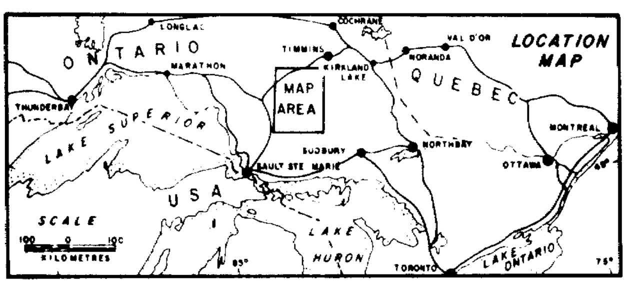
The general area is under active development by a local lumber company (Mallette Lumber) which should ensure continued year round access.

The main line of the Canadian National Railway passes to the southwest of the property.

The main centre of service and supply in the region is Timmins with a population of 45,000. All manner of mining equipment, contract services, exploration services, etc. are available here along with a skilled and stable mining work force. The smaller, nearby hamlet of Foleyet offers some food, accommodation and supply services.

Of interest, Orofino Resources Ltd. plan to construct a mill on their Silk township gold property which might be available to handle ore from other deposits in the immediate area. This is a very attractive consideration for further gold exploration in the north Swayze area. The presence of a nearby custom mill could greatly increase the economic viability of a smaller, otherwise non-economic deposit. The closest custom mills at present are those of Pamour Porcupine Mines Ltd. at Schumacher and Pamour, approximately 85 miles by truck to the east.





LEGEND

☐	*Swayze metasedimentary – metavolcanic belt*
☐	*Felsic intrusive rocks*
⚒	*Gold prospect or showing*
▪	*Shaft on gold deposit*

BEARCAT EXPLORATIONS LTD.

SWAYZE GREENSTONE BELT

GEOLOGY AND GOLD OCCURRENCES

Project No: C – 596	By: W. Brereton
Scale:	Drawn: G.C.S Ltd.
Drawing No: Figure 1	Date: Feb. 1984

MPH **MPH Consulting Limited**

4.0 GEOLOGY AND MINERAL DEPOSITS - NORTH SWAYZE GOLD AREA

4.1 General

The property is located in the northeastern extremity of the Swayze Gold Belt. The Swayze Gold Belt is located southwest of and in rocks grossly equivalent to the Timmins-Porcupine Gold Camp. The Porcupine Camp is located in the west portion of the Abitibi Greenstone Belt of the Canadian Shield. It is the largest gold-producing camp in Canada and one of the largest in the world. During the past seventy years, more than 56.3 million troy ounces of gold have been produced from 18 properties in the area.

The Swayze area contains four past-producing gold mines (Joburke, Tionaga, Halcrow-Swayze and Jerome). Other substantial gold prospects under active exploration/ development in addition to Orofino include the Rundle Mine (Sulpetro-Hollinger) in Newton Township, the Kenty Mine in Swayze Township (Cumo Resources-Heron Resources) and the Jerome Mine in Osway Township (Osway Resources).

4.2 History of Exploration and Development

Initial interest in the general region was stimulated by the discovery of two major iron formation bands along the Groundhog River and Woman River in the early 1900's. Following a general waning of interest in iron deposits, gold became the principal metal sought.

Earliest gold discoveries date back to 1909 as prospectors worked westward from the Porcupine Camp which had been discovered that same year.

The first significant gold discovery in the area and subsequent staking rush was made in 1918 on the east shore of Horwood Lake. This became the property of Groundhog Gold Mines Limited in 1934.

Visible gold was discovered on what is now the property of Orofino Resources Limited in the early 1930's. This precipitated another small rush into the region.

Numerous other properties were being actively explored and developed in the Horwood Lake area at this time. The only production during this period was in 1938-39 from the Smith-Thorne (Tionaga) Mine.

Gold was then discovered in 1946 on the Joburke property in Keith Township immediately to the north of Orofino triggering another staking rush in the northern portion of the Swayze metasedimentary-metavolcanic belt.

4.3 Geology

The Swayze area has been the subject of numerous geological studies since the turn of the century. The most pertinent studies in the present area are those by Laird (1935), Harding (1937), Breaks (1978) and Milne (1972).

The Swayze area represents the western extremity of the Abitibi metasedimentary-metavolcanic ("greenstone") belt of Archean age which extends for several hundred miles east - northeast to the Grenville Front east of Chibougamau.

Swayze greenstone rocks are truncated to the west against the "Kapuskasing High" structural-metamorphic zone.

Of interest, the Abitibi is probably the most prolific metal producer of any greenstone belt in the world.

The present area of interest, the Kenogaming-Penhorwood area, encompasses the northeasternmost extremity of the Swayze greenstone sub-belt.

The present property is contained within a discrete, lenticular pile of felsic metavolcanic rocks, approximately 13 km long in an east-west direction by 6.5 km wide in the central portion of Kenogaming Township and east-central portion of Penhorwood Township (Ontario Department of Mines Map 2231). The main felsic pile is bounded to the east by the Tanton Lake Fault although a narrow wedge of felsic rocks does extend to the east into adjoining Pharand Township. Rock types include mainly felsic volcaniclastic rocks (tuffs, tuff-breccias) and some flows. The volcanics are extensively intruded by mafic to ultramafic rocks. A major oxide facies iron formation extends along the entire north boundary of the felsic pile and forms the contact with adjoining mafic metavolcanics. Granitic batholith complexes occur to the east and south.

Extensive areas of mafic-ultramafic intrusives crop out on and to the west of the survey area. One of these hosts the Reeves talc/asbestos Mine.

4.4 Mineral Deposits

Economic interest in the immediate area has focussed on gold, silver, asbestos, talc, copper-nickel, iron, copper- zinc and barite deposits. There has been economic production of the first four of the above mineral commodities. Gold and silver have been won primarily from structurally-controlled,

LEGEND

9 Diabase, unsubdivided.
9a Quartz diabase (dikes).
9b Porphyritic quartz diabase (dikes).

INTRUSIVE CONTACT

ARCHEAN

LATE FELSIC INTRUSIVE ROCKS

8 Granitic rocks.
8a Biotite-hornblende granodiorite.
8b Biotite granodiorite, biotite quartz monzonite.
8c Xenolithic granodiorite.
8d Diorite, hybrid diorite, syenite.
8e Muscovite-albite trondhjemite.
8f Leucocratic trondhjemite.
8g Pegmatite.
8h Migmatite.

INTRUSIVE CONTACT

EARLY FELSIC INTRUSIVE ROCKS

7 Granitic rocks.
7a Biotite trondhjemite gneiss.
7b Feldspar porphyry, quartz-feldspar porphyry.
7c Quartz porphyry.
7d Hybrid granodiorite gneiss.
7e Migmatite.
7f Hornblende-chlorite-feldspar porphyry.

INTRUSIVE CONTACT

ULTRAMAFIC INTRUSIVE ROCKS

6 Unsubdivided.
6a Grey to green-grey serpentinite.
6b Dark grey to black serpentinite.
6c Coarse blade textured serpentinite (chicken track rock).
6d Mineralogically layered serpentinite.
6e Sheared serpentinite.
6f Asbestos-bearing serpentinite.
6g Chloritic tremolitic serpentinite.†
6h Talcose serpentinite.
6k Rusty carbonatized serpentinite.

INTRUSIVE CONTACT

EARLY MAFIC INTRUSIVE ROCKS

5 Unsubdivided.
5a Tremolitic actinolitic amphibolite.
5b Actinolitic hornblendic amphibolite.
5c Sheared amphibolite.
5d Porphyritic amphibolite.
5e Garnet amphibolite.
5f Dioritic amphibolite.

INTRUSIVE CONTACT

IRON FORMATION

4 Unsubdivided.
4a Magnetite-chert iron formation.
4b Carbonate-chert iron formation.
4c Amphibole-chert iron formation.
4d Garnet-magnetite amphibolite.
4e Chert.
4f Pyritic slate, graphitic slate.

DETRITAL METASEDIMENTS

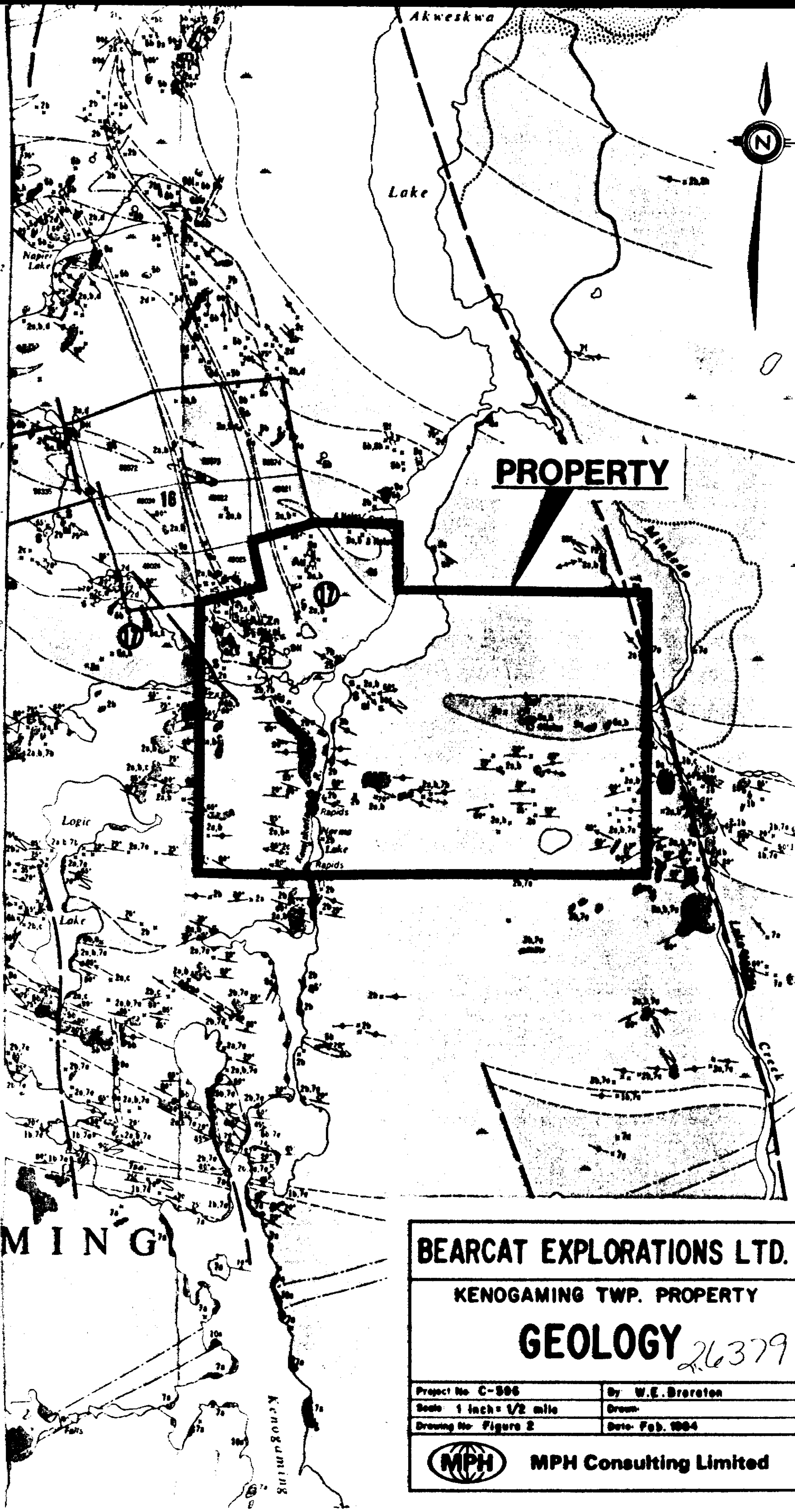
3 Unsubdivided.
3a Greywacke.
3b Conglomerate.
3c Slate, argillite.
3d Phyllite, sericite schist, chlorite schist.
3e Sandstone.

FELSIC TO INTERMEDIATE METAVOLCANICS[c]

2 Unsubdivided.
2a Felsic agglomerate, mafic agglomerate.
2b Felsic tuff, felsic lapilli tuff.
2c Mafic tuff, mafic lapilli tuff.
2d Felsic flows.
2e Felsic flow breccia.†
2f Garnet amphibolite.

MAFIC TO INTERMEDIATE METAVOLCANICS[c]

1 Unsubdivided.
1a Light coloured chlorite-tremolite metavolcanics.
1b Dark coloured actinolite-hornblende schistose and gneissose metavolcanics.
1c Chloritic metavolcanic schist, sericite-carbonate metavolcanic schist.
1d Pillowed metavolcanics.
1e Epidotized metavolcanics.†



quartz vein-type deposits, e.g. Joburke mine, Keith Township, which produced 66,500 ounces of gold from 1973-1979. Asbestos and, lately, talc are produced at the Reeves Mine of Canadian Johns-Manville in Reeves Township to the northwest of the present property. The Orofino Mine, 40 km southwest of the property is currently being actively explored with a view to a productive decision in early 1984. Drill indicated reserves are currently quoted in the range of 1,000,000 tons of 0.17 oz Au/ton.

5.0 BEARCAT PROPERTY - GEOLOGY AND EXPLORATION HISTORY

5.1 Geology

The property is underlain by a west to northwest-trending sequence of interbedded pyroclastic rocks comprising ash tuffs, lapilli tuffs and tuff breccias. Steep south dips predominate. Compositionally, the pyroclastics vary from mafic to felsic types with a preponderance of approximately intermediate compositions. Coarser, tuff breccias ("aggglomerate") occur in approximately equal proportions with finer ash and lapilli tuffs (Figure 2).

Mafic to ultramafic rocks are intrusive into the pyroclastics in the northwest and east-central portions of the property. The Tanton Lake Fault is indicated to cross the northeast corner of the property.

5.2 Exploration History

Gold was first discovered in the area now encompassed by the Carl Creek property in 1947 by a prospector working for Hoodoo Lake Mines. Subsequent prospecting, trenching and sampling were concentrated on five of their claims where gold discoveries had been made. The following quotes are excerpts taken from a report dated February 3, 1948 by G.W. Moore, Mining Engineer (Timmins Assessment Work File T-527):

"As a result of this work many small gold bearing shear zones were found but so far there is only one that shows values that have economic interest.

The main belt of tuff and agglomerate in which the gold bearing zones occur strikes roughly at N55W and dips steeply to the northeast. The fragments in the agglomerates are elongated along the strike of foliation. This tuff and agglomerate is highly silicified throughout. The strike of the gold bearing shear zones seems to conform with the general strike length of the tuff.

The tuff and agglomerate are usually slightly mineralized with fine pyrite which becomes quite heavy in parts, especially in the narrow gold bearing shear zones and in trenches No. 7 to 12 in the area west of the main gold discovery. Considerable heavy pyrite also occurs in scattered bunches east of Akweskwa Lake.

A large quartz vein about 150 feet wide was examined. This occurs about 600 feet south of the gold bearing belt of tuff and agglomerate and is close to the west shore of Akweskwa Lake. Although this vein is barren looking and a grab sample taken from it ran only .01 ozs in gold, the vein is considered to be of interest from a structural standpoint. So far it has been difficult to trace the vein along its strike because of low swampy ground to the west and Akweskwa Lake to the east. The strike of the vein is apparently parallel to the general strike of the rocks.

The gold discoveries made to date have been confined to narrow well pyritized shear zones in the tuff and agglomerate. Gold is readily panned from those shear zones, usually after burning pieces of the rock. In the case of the main gold discovery which is located on claim No. S-49029, heavy tails of gold have been panned from surface rust while high assays have also been obtained from channel samples in different places along the strike. The shear is about two feet wide and the rock section has been traced so far for about seventeen feet in length. Late this fall Elieff dug up some rich specimens of free gold out of this shear that further increased interest in it and in the property. Further trenching showed the presence of still more free gold. This seems to occur in concentrations along narrow seams in the shear zone. The high gold samples also carry considerable silver, about 25% as much as of gold.

The trenching done on the east side of Akweskwa Lake has uncovered still more narrow gold bearing shear zones with the gold content being generally a little higher than further west. That is with the exception of the main rich shear zone.

Geological conditions seem generally favourable to the deposition of the gold ore with the area on the east side of Akweskwa Lake showing the most signs on rock disturbance. Drag folds are more common here than further west."

In 1950 the name of Hoodoo Lake Mines was changed to Dunvegan Mines. During the summer of 1951, the Canadian Johns-Manville Company sent a party of prospectors into the area to investigate a belt of serpentine rocks (magnetic highs) that extend in an east-west direction through Kenogaming Township. The possibility of finding asbestos led to renewed staking by Dunvegan, Canadian Johns-Manville, and others.

In 1951, old trenches were deepened and new trenches excavated; all were sampled for zinc, gold and silver. Up to 0.24 oz Au/ton over 4 ft. and 12.33% Zn over 2 ft. were recorded by this work (OMNR file T-527, Timmins).

In 1953, Norduna Mines (Falconbridge Nickel) optioned 135 claims from Dunvegan Mines and undertook an exploratory search for nickel deposits associated with the extensive belt of altered ultramafics. After completing approximately 5,000 ft. of diamond drilling, Norduna patented nine claims covering the main nickel occurrences in disseminated pentlandite and allowed the remainder to lapse.

In 1957, Dunvegan re-staked some of the lapsed claims, and undertook additional exploration on two separate serpentinite zones. They drilled six holes in the area located a few hundred feet south of the original Hoodoo Lake Mines gold-zinc showing and four holes located east of Akweskwa Lake. No commercial mineralization was encountered in the drill holes. Dunvegan subsequently became inactive in the area and their claims lapsed.

In 1960, Jonsmith Mines Ltd. staked 12 claims covering the original Hoodoo Lake Mines' gold-zinc showing, and undertook exploration in this general area. They drilled three short holes (packsack drill) to test a gold occurrence located 1,800 ft. northeast of the above main gold-zinc showing. Each hole was just over 100 ft. long and the total length drilled was 306 feet such that the total strike length of the tuffaceous zone tested was approximately 100 feet only. The principal rock intersected in the holes was sericitized tuff cut by thin veins of lightly pyritized quartz. Gold mineralization was reportedly associated with the heavier pyrite mineralization; the highest gold values were obtained where chalcopyrite and galena were present in addition to the pyrite. The best intersections were in drillhole No. 1 where a 5-foot intersection assayed 0.92 oz. gold per ton was reported, followed by another 5-foot section that assayed 0.16 oz. gold per ton. That is, the 10-foot section from 65-75 ft. averaged 0.54 oz. gold per ton. It appears as if the remainder of the hole from 75-102 ft. was not assayed even though the drill log states that it intersected the same favourable sericitized tuff host rock with scattered pyrite and some quartz vein material.

Two other sections intersected near the beginning of the hole also contained gold values, a 5-foot section assayed 0.06 oz. Au/ton, and a 5.6-foot section assayed 0.04 oz. Au/ton. Two holes drilled on either side of Hole No. 1 intersected only minor gold values with the best intersection being three feet that averaged 0.07 oz. Au/ton. Because of their locations however, there is considerable doubt whether or not these latter two short drillholes actually intersected the possible srike extensions of the 10-foot gold-bearing zone intersected in Hole No. 1.

In 1966, Falconbridge Nickel Mines optioned part of the Jonsmith claim group including the area encompassing the original Hoodoo Lake Mines' gold-zinc showing. Falconbridge drilled eight holes to test this zone along an 800-foot strike length. Thin sphalerite stringers were cut in hole No's 3, 7 and 8 and disseminated pyrite sections in all holes. In DDH #7, one 3.7-ft. section assayed 1.21% Zn, 0.51 oz. Ag and 0.03 oz. Au per ton; and another 5.2 ft. section assayed 1.03% Zn, 0.55 oz. Ag and 0.01 oz. Au per ton. The best gold assay was a 3.3 ft. section near the bottom of hole 4 which returned 0.08 oz. Au per ton.

Falconbridge also completed ground magnetic, horizontal loop electromagnetic, and self-potential surveys over six of the Jonsmith claims as well as their own adjacent claims. No worth while electromagnetic anomalies were detected. The magnetometer survey clearly outlines the ultramafic intrusive bodies as areas of magnetic highs. Falconbridge subsequently drilled a number of holes at scattered points throughout the claim group to test magnetic highs associated with ultramafic intrusives. Disseminated sulphide zones with associated nickel values were found at a number of locations; however, no economic deposits were found.

Texasgulf Ltd. staked the gold-zinc zone in 1978 and carried out magnetic, VLF-EM and horizontal loop EM surveys on 100 metre, north-south lines. As established by the previous Falconbridge survey, there is no horizontal loop response over the main zones (OMNR File T-2000, Timmins). There is no record of any drilling by Texasgulf.

Donit Exploration Services carried out a new VLF-EM survey over the 5 claims surrounding the known showings in July of 1983. The work outlined two relatively strong VLF responses (conductors "A" and "B") and numerous weaker responses. There is no obvious VLF response over the gold-zinc zone, although the data are relatively active in the showing area and some conductive-like responses here may actually be representative of the pyrite mineralization of associated shearing. IP surveys were recommended by the author of the Donit report, a recommendation with which the present author strongly concurs.

MPH Consulting Limited of Toronto carried out a program of backhoe stripping, rock trenching and geological mapping on the 5 claims which cover the Dunvegan-Jonsmith prospects in the fall of 1983. The work failed to locate the reported Jonsmith zone. Trenching on the Dunvegan or "Main" Au-Zn showing area disclosed a 50 m wide corridor of sheared, sericitized, pyritized tuffaceous rocks containing numerous individual zones of siliceous pyritic mineralization up to 3 m in width. Values of up to 0.08 oz Au per ton and 22% Zn were recorded. IP surveys were recommended along the key mineralized stratigraphy.

6.0 AIRBORNE GEOPHYSICAL SURVEYS

6.1 General

Airborne surveying consisted of Dighem electromagnetics (EM), VLF-electromagnetics (VLF-EM) and magnetics.

Airborne survey data are presented in Maps 1, 2 and 3. The author has drawn freely on material provided by Dighem re conductor responses, etc. in the following discussion.

6.2 VLF-EM

VLF-EM anomalies are not EM anomalies in the conventional sense. EM anomalies primarily reflect eddy currents flowing in conductors which have been energized inductively by the primary field. In contrast, VLF-EM anomalies primarily reflect current gathering, which is a non-inductive phenomenon. The primary field sets up currents which flow weakly in rock and overburden, and these tend to collect in low resistivity zones. Such zones may be due to graphite and/or sulphides, shears, river valleys and even unconformities.

The Hertz Industries Ltd. Totem VLF-electromagnetometer as used in the present survey measures the total field and vertical quadrature VLF components. Both these components are digitally recorded in the aircraft with a sensitivity of 0.1 percent. The total field yields peaks over VLF current concentrations whereas the quadrature component tends to yield crossovers. Both appear as traces on the profile records. The total field data also are filtered digitally and displayed on a contour map, to facilitate the recognition of trends in the rock strata and the interpretation of geologic structure.

The response of the VLF total field filter operator in the frequency domain is basically similar to that which can be used to produce enhanced magnetic maps. The VLF-EM filter removes long wavelengths such as those which reflect regional and wave transmission variations. The filter sharpens short wavelength responses such as those which reflect local geological variations. The filtered total field VLF-EM contour map is produced with a contour interval of one percent.

Filtered VLF results for the property are presented as Map 1 with a corresponding legend as Map 1a.

Four east-west VLF anomalous zones transect the Bearcat claims.

The northernmost of these is centred in claims 652688-689. It is broadly coincident with a ground VLF conductor located by the previous Donit survey along a swampy linear depression. This VLF anomalous zone is interpreted to be due to a zone of shearing in felsic pyroclastic rocks. There is probably some conductive overburden enhancement in this and all subsequent cases.

Another VLF zone is present from Akweskwa Lake east along the northeast property boundary. This is broadly coincident with a linear airborne magnetic anomaly (Map 2). This VLF zone is therefore interpreted to represent the weak conductivity which is often associated with sheared and altered ultramafics in this part of the world.

A very prominent, strong VLF zone transects the central portion of the property from west to east. It follows a linear swampy creek draining into Akweskwa Lake in the west. It is directly coincident with a large airborne magnetic anomaly in the east which is known to be reflective of an ultramafic intrusive. This impressive VLF zone is interpreted to be reflective of a major zone of east-west shearing, at least in part associated with altered ultramafics.

A final east-west VLF anomalous zone along the south property boundary is again interpreted to represent a zone of east-west shearing and alteration in intermediate-felsic pyroclastic rocks.

6.3 Magnetics

The magnetometer data are digitally recorded in the aircraft to an accuracy of one nT (i.e., one gamma). The digital tape is processed by computer to yield a total field magnetic contour map.

Maps 2 and 2a present magnetic results and legend respectively for the Bearcat property.

There is extensive magnetic activity in the central and west portion of the claims.

A prominent, ellipsoidal, east-west magnetic high is present in the central portion of the group. This coincides directly with a known ultramafic intrusive body that has been investigated in the past for its nickel potential. The airborne anomaly is interpreted to be reflective of the relatively increased magnetite content typically associated with this rock type.

Likewise, the extensive magnetic activity along and to the west of Akweskwa Lake is coincident with known mafic to ultramafic bodies and is interpreted to be reflective of same.

6.4 Electromagnetics

DIGHEM electromagnetic responses fall into two general classes, discrete and broad. The discrete class consists of sharp, well-defined anomalies from discrete conductors such as sulphide lenses and steeply dipping sheets of graphite and sulphides. The broad class consists of wide anomalies from conductors having a large horizontal surface such as flatly dipping graphite or sulphide sheets, saline water-saturated sedimentary formations, conductive overburden and rock, and geothermal zones.

The EM anomalies appearing on the electromagnetic map are analyzed by computer to give the conductance (i.e., conductivity-thickness product) in mhos of a vertical sheet model. This is done regardless of the interpreted geometric shape of the conductor. This is indicated by Dighem to not be an unreasonable procedure because the computed conductance increases as the electrical quality of the conductor increases, regardless of its true shape. DIGHEM anomalies are divided into six grades of conductance, as follows. The conductance in mhos is the reciprocal of resistance in ohms.

Anomaly Grade	Mho Range
6	greater than 99
5	50 - 99
4	20 - 49
3	10 - 19
2	5 - 9
1	less than 5

The conductance value is a geological parameter because it is a characteristic of the conductor alone; it generally is independent of frequency, and of flying height or depth of burial apart from the averaging over a greater portion of the conductor as height increases. Small anomalies from deeply buried strong conductors are not confused with small anomalies from shallow weak conductors because the former will have larger conductance values.

Conductive overburden generally produces broad EM responses which are not plotted on the EM maps. However, patchy conductive overburden in otherwise resistive areas can yield discrete anomalies with a conductance grade of 1, or even of 2 for conducting clays which have resistivities as low as 50 ohm-m. In areas where ground resistivities can be below 10 ohm-m, anomalies caused by weathering variations and similar causes can have any conductance grade. The anomaly shapes from the multiple coils often allow such conductors to be recognized, and these are indicated by the letters S, H, G and sometimes E on the map (see EM legend - Figure 4b).

For bedrock conductors, the higher anomaly grades indicate increasingly higher conductances. Graphite and sulphides can span all grades but, in any particular survey area, field work may show that the different grades indicate different types of conductors.

Strong conductors (i.e., grades 5 and 6) are characteristic of massive sulphides or graphite. Moderate conductors (grades 3 and 4) typically reflect sulphides of a less massive character or graphite, while weak bedrock conductors (grades 1 and 2) can signify poorly connected graphite or heavily disseminated sulphides. Grade 1 conductors may not respond to ground EM equipment using frequencies less than 2000 Hz.

Faults, fractures and shear zones may produce anomalies which typically have low conductances (e.g., grades 1 and 2). Conductive rock formations can yield anomalies of any conductance grade. The conductive materials in such rock formations can be salt water, weathered products such as clays, original depositional clays and carbonaceous material.

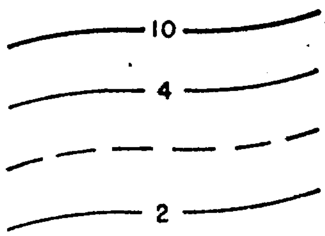
There are no good grade EM anomalies on the Bearcat property, suggesting that within the detection capability of the airborne geophysical surveying, there are no massive sulphide/graphite zones on the claims.

There are several "S-type", i.e., indicated surficial conductors on the claims. These are coincident in virtually every case with VLF anomalous zones and are interpreted to be reflective of the very weak shear ($\pm$ conductive overburden enhancement) conductivity being detected at the VLF frequencies.

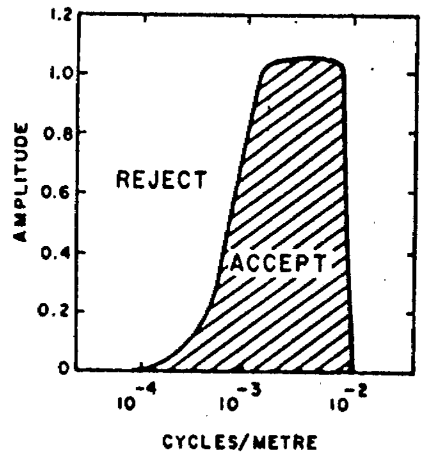
The stronger, single-line anomaly on claim 653250 was examined on the airborne tapes. It is a relatively broad, mainly in-phase response at the high (7,200 Hz) frequency only. It appears relatively uninteresting at this point, but should be checked in the course of any further work on the claims.

LEGEND

Contours in percent.

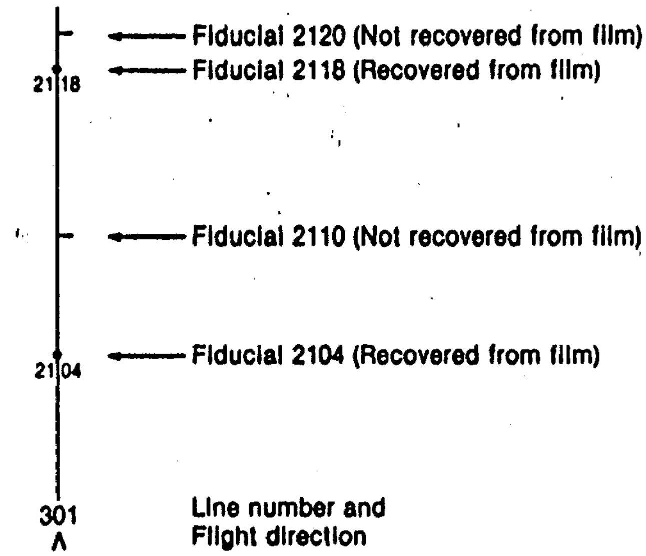


The numbers face in the direction of increasing value.

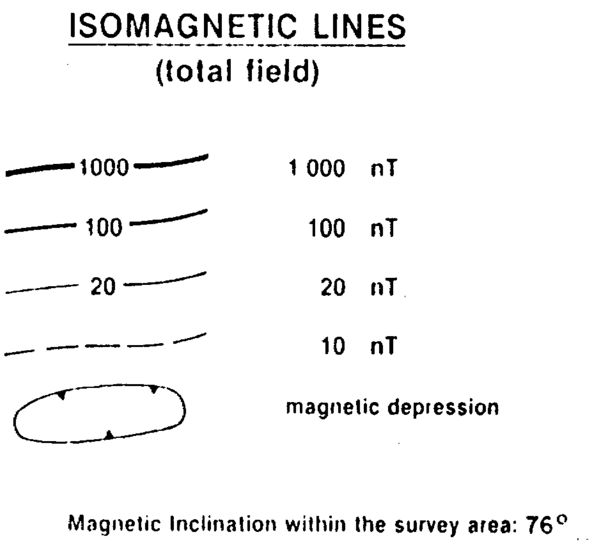


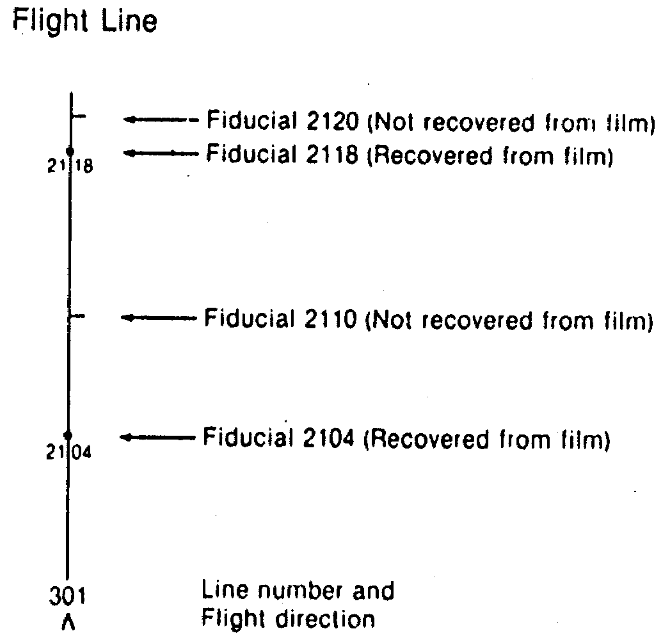
Frequency response of VLF – EM filter

Flight Line



Map 1a: VLF Legend





Map 2a: Magnetic Legend

ANOMALY GRADE	EM GRADE SYMBOL	CONDUCTANCE RANGE (MHOS)
6		· 99
5		50 -- 99
4		20 -- 49
3		10 -- 19
2		5 -- 9
1		5
	X	Indeterminate

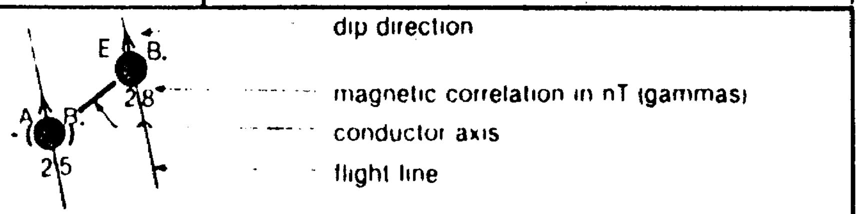
DIGHEM anomalies are divided into six grades of conductivity-thickness product. This product in mhos is a measure of conductance.

Depth is greater than
- · 15 m
- : 30 m
- ⋮ 45 m
- ⋮ 60 m

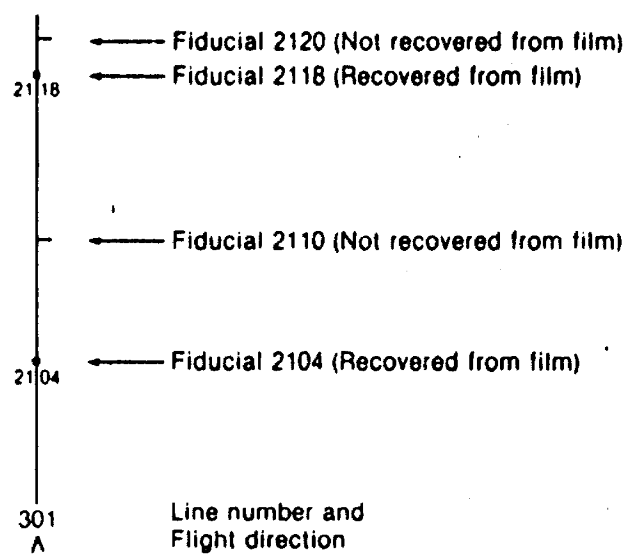
Inphase and Quadrature of Coaxial Coil is greater than
- . 5 ppm
- .. 10 ppm
- ... 15 ppm
- .... 20 ppm

Interpretive symbol	Conductor ("model")
B.	Bedrock conductor
S.	Conductive cover ("horizontal thin sheet")
H.	Broad conductive rock unit, deep conductive weathering, thick conductive cover ("half space")
E.	Edge of broad conductor ("edge of half space")
L.	Culture, e.g. power line, building, fence

arcs indicate the conductor has a thickness · 10 m



Flight Line



Map 3a: EM Legend

7.0 CONCLUSIONS AND RECOMMENDATIONS

Airborne geophysical surveys (Dighem EM, VLF-EM, magnetics) recently completed on the Kenogaming Township gold prospect of Bearcat Explorations Ltd. indicate that a number of east-west shear zones transect the property area. These are interpreted to be associated both with intermediate to felsic pyroclastic and altered ultramafic rocks.

The indicated presence of these shear zones may be of some exploration significance given the shear association with auriferous pyrite mineralization at the Dunvegan gold-zinc showing and a weakly auriferous quartz vein zone on claim 653241.

Also, the indicated presence of several ultramafic bodies may be of significance in terms of gold exploration given the known spatial association of these rocks with gold ores, e.g. Timmins, and the genetic relationship inferred by Pyke (1978) and others in Archean gold camps.

An important consideration here would be to determine whether or not the ultramafics are of intrusive or extrusive origin, the latter being of greater significance in gold exploration.

Results of the airborne surveying are sufficiently encouraging to recommend a modest follow-up program of geological investigations and geochemical sampling.

Geochemical sampling should consist of biogeochemistry (humus and/or "twigs") along north-south claim lines over VLF anomalous zones to determine if any of these are geochemical anomalous in gold.

Geologically, the ultramafic rocks should be examined along with a general investigation of lithology and structure on the property. The claims should be prospected at the same time.

The following budget is proposed:

Geology, prospecting		$ 5,000.00
Geochemistry (11 km of sampling with samples at 30 m = 370 samples)		
Sample collection	$ 3,000	
Analytical - 370 x $15	5,500	8,500.00
Food, accommodation		2,500.00
Travel, transportation, truck rental		2,500.00
Field supplies, equipment		2,000.00
Reporting, drafting, reproduction, land management		4,500.00
Total Approximately		$25,000.00

Recommendations for further work will be contingent on the results of the above.

Respectfully submitted,

W.E. Brereton, P.Eng.

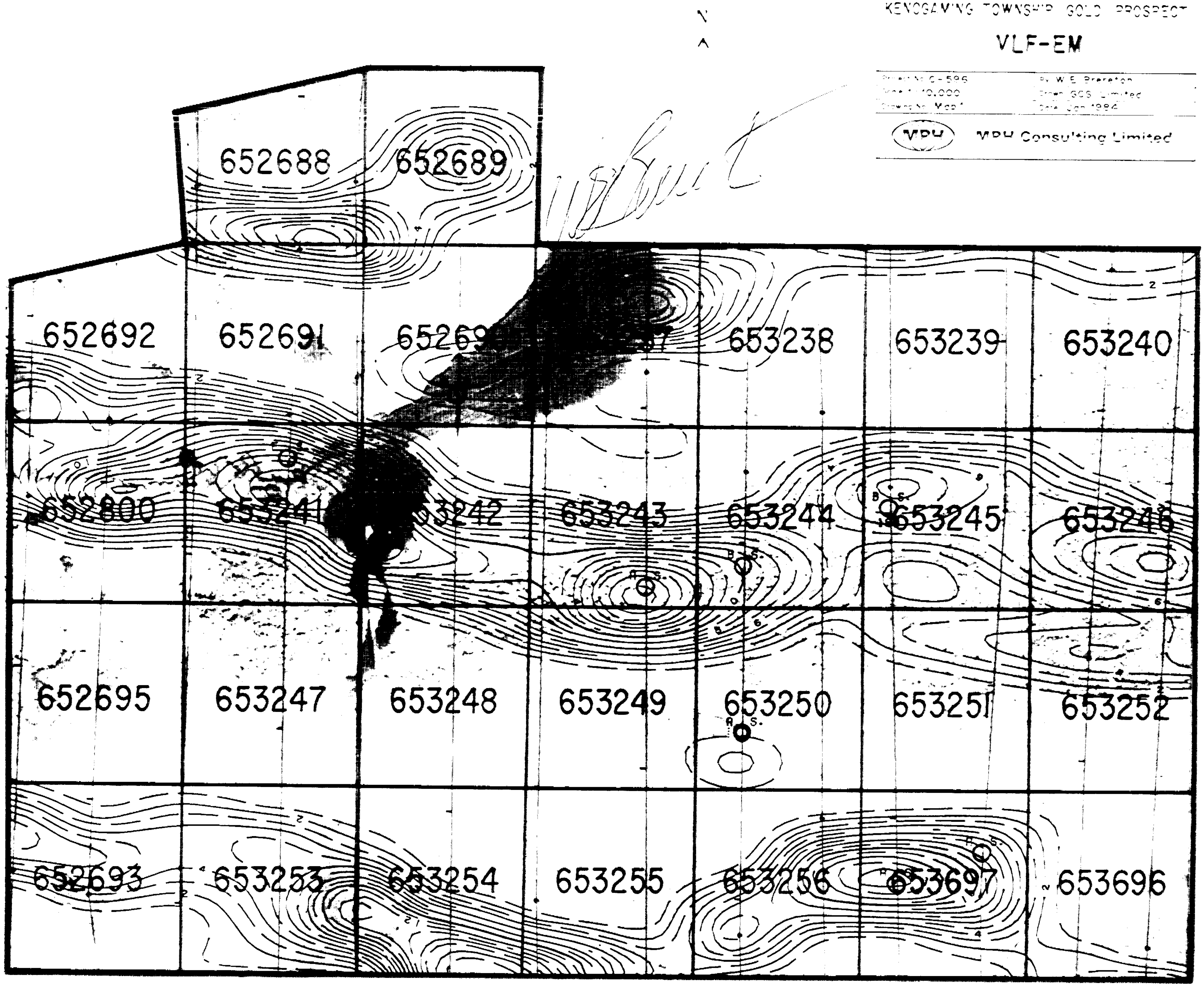
BEARCAT EXPLORATIONS LTD.

KENOGAMING TOWNSHIP GOLD PROSPECT

VLF-EM

Project No. C-596	By W.E. Brereton
Scale 1:10,000	Drawn GCS Limited
Drawing No. Map 1	Date Jan 1994

VPH Consulting Limited



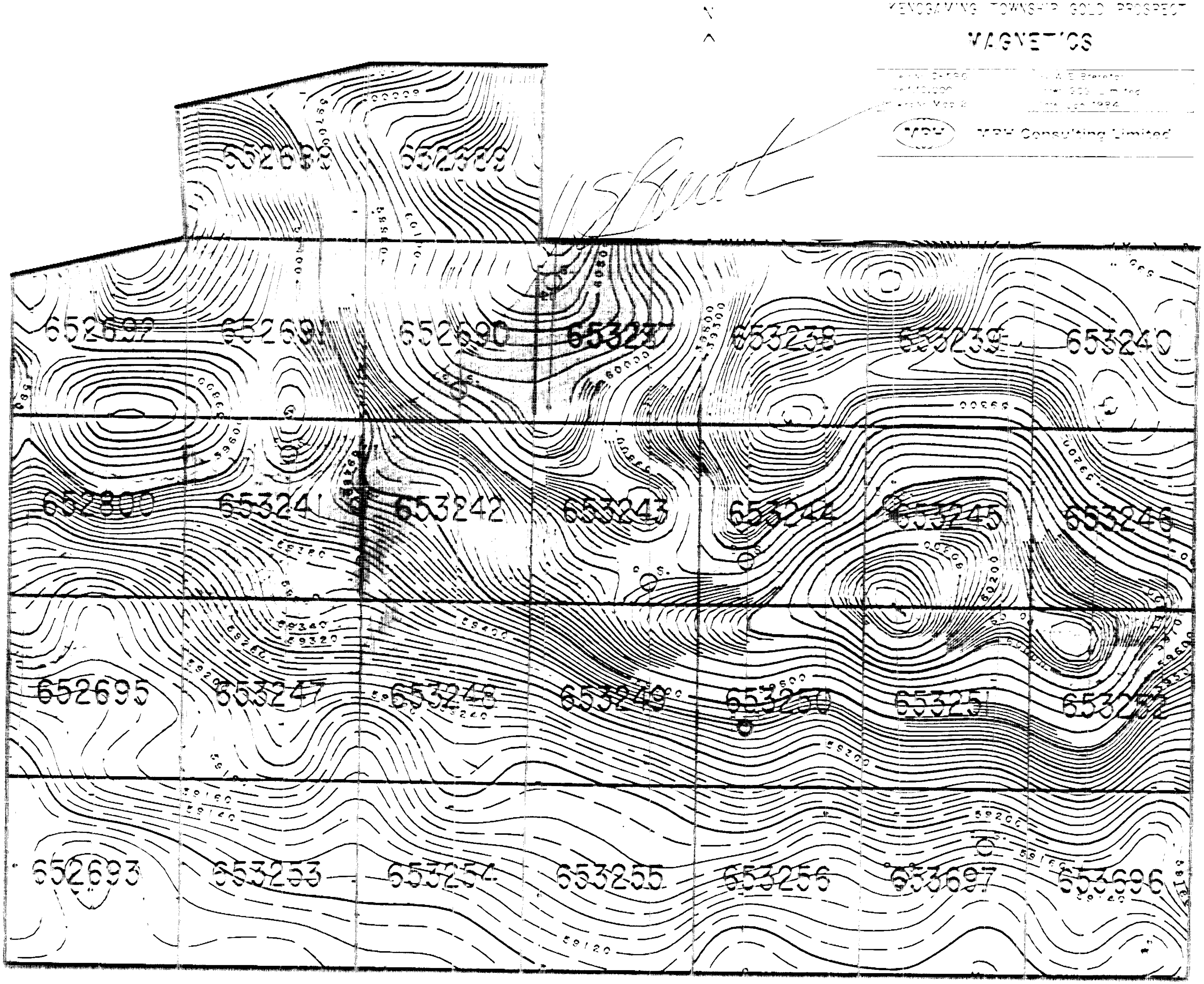
BEARCAT EXPLORATIONS LTD.

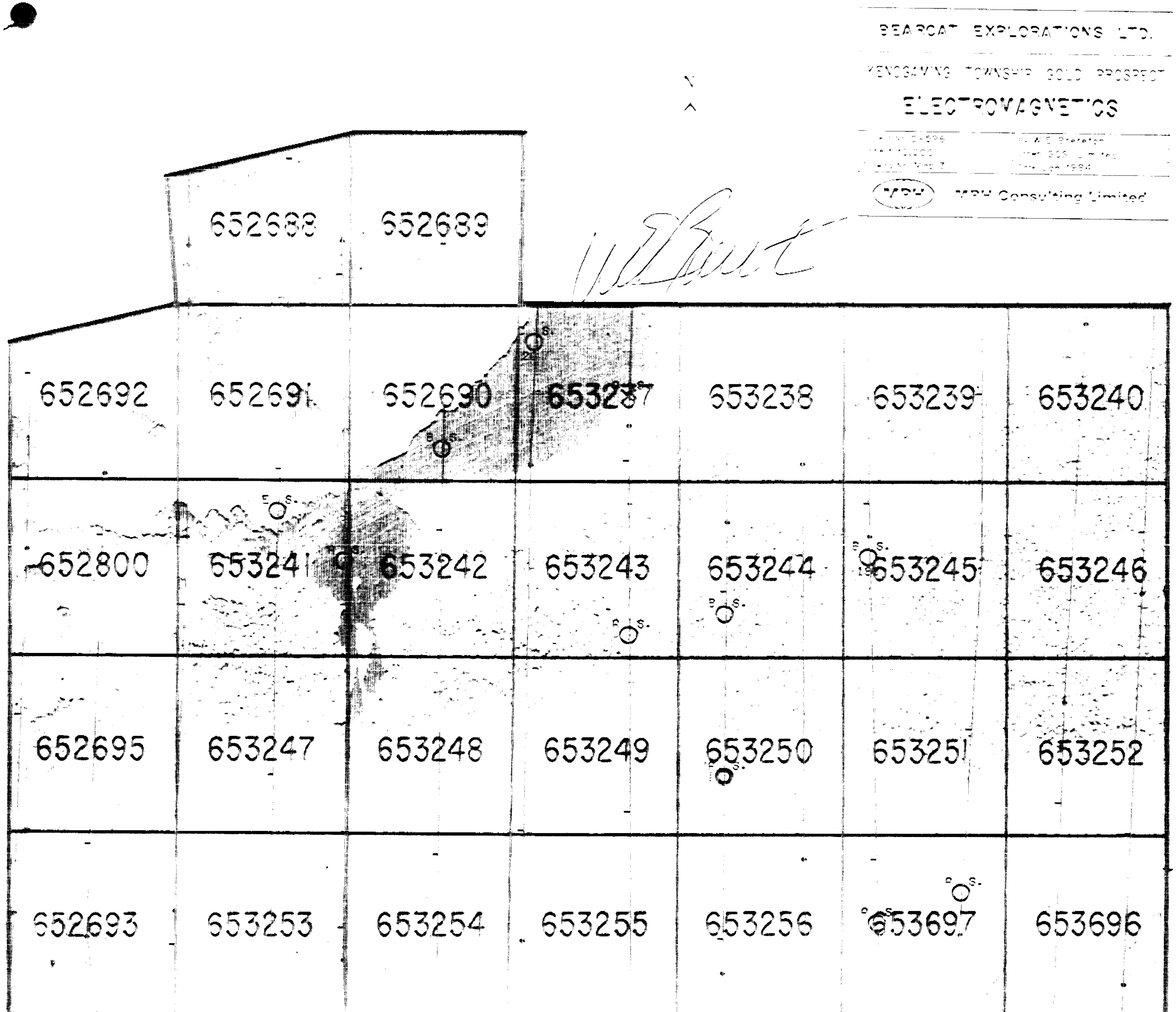
KENOGAMING TOWNSHIP GOLD PROSPECT

MAGNETICS

A. E. Brereton

MPH Consulting Limited





BEARCAT EXPLORATIONS LTD.
KENOGAMING TOWNSHIP GOLD PROSPECT
ELECTROMAGNETICS
MPH Consulting Limited
652688
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653697
653696

REFERENCES

Breaks, F.W.; 1978
Geology of the Horwood Lake Area, Ont. Geol. Surv. Report 169

Harding, .W.D.; 1937
Geology of the Horwood Lake Area, Ont. Dept. Mines An. Report, Vol. XLVI, P. II, 1937.

Laird, H.C.; 1935
Horwood Lake Area, Ont. Dept. Mines An. Report, Vol. XLIV, P. VII, 1935.

Milne, J.G.; 1972
Geology of the Kukatush - Sewell Lake Area, Ont. Div. Mines Geol. Report 97.

Pyke, D.R.; 1975
On the Relationship of Gold Mineralization and Ultramafic Volcanic Rocks in the Timmins Area, ODM Misc. Paper 62.

CERTIFICATE OF QUALIFICATIONS

I, William E. Brereton, of Toronto, Ontario, do hereby certify that:

1. I am a consulting geologist with an office at 120 Adelaide Street West, Suite 2406, Toronto, Ontario, M5H 1T1, Canada.

2. I obtained an Honours B.Sc. degree in Geology and Physics from Queen's University in 1971 and an M.Sc.(A) in Mineral Exploration from McGill University in 1977.

3. I have practised my profession continuously since graduation and have been in private independent practice since 1977.

4. I am a member of the Association of Professional Engineers of the province of Ontario.

5. I personally provided overall supervision in respect of airborne surveys herein described.

William E. Brereton, P.Eng.,
Toronto, Ontario, Canada,
January, 1984.

Appendix 1

THE FLIGHT RECORD AND PATH RECOVERY

Both analog and digital flight records were produced. The analog profiles were recorded on chart paper in the aircraft during the survey. The digital profiles were generated later by computer and plotted on electrostatic chart paper at a scale of 1:10,000. The digital profiles are listed in Table A-1.

In Table A-1, the log resistivity scale of 0.03 decade/mm means that the resistivity changes by an order of magnitude in 33 mm. The resistivities at 0, 33, 67, 100 and 133 mm up from the bottom of the digital flight record are respectively 1, 10, 100, 1,000 and 10,000 ohm-m.

The fiducial marks on the flight records represent points on the ground which were recovered from camera film. Continuous photographic coverage allowed accurate photo-path recovery locations for the fiducials, which were then plotted on the geophysical maps to provide the track of the aircraft.

The fiducial locations on both the flight records and flight path maps were examined by a computer for unusual helicopter speed changes. Such speed changes may denote an error in flight path recovery. The resulting flight path locations therefore reflect a more stringent checking than is provided by standard flight path recovery techniques.

Table A-1. The Digital Profiles

Channel Name (Freq)	Observed parameters	Scale units/mm
MAG	magnetics	10 nT
ALT	bird height	3 m
CXI (900 Hz)	vertical coaxial coil-pair inphase	1 ppm
CXQ (900 Hz)	vertical coaxial coil-pair quadrature	1 ppm
CXS (900 Hz)	ambient noise monitor (coaxial receiver)	1 ppm
CPI (900 Hz)	horizontal coplanar coil-pair inphase	1 ppm
CPQ (900 Hz)	horizontal coplanar coil-pair quadrature	1 ppm
CPS (900 Hz)	ambient noise monitor (coplanar receiver)	1 ppm
CPI (7200 Hz)	horizontal coplanar coil-pair inphase	1 ppm
CPQ (7200 Hz)	horizontal coplanar coil-pair quadrature	1 ppm
CPS (7200 Hz)	ambient noise monitor (coplanar receiver)	1 ppm
VLFT	VLF-EM total field	1 %
VLFQ	VLF-EM vertical quadrature	1 %
	Computed Parameters	
DIFI (900 Hz)	difference function inphase from CXI and CPI	1 ppm
DIFQ (900 Hz)	difference function quadrature from CXQ and CPQ	1 ppm
REC1	first anomaly recognition function	1 ppm
REC2	second anomaly recognition function	1 ppm
REC3	third anomaly recognition function	1 ppm
REC4	fourth anomaly recognition function	1 ppm
CDT	conductance	1 grade
RES (900 Hz)	log resistivity	.03 decade
RES (7200 Hz)	log resistivity	.03 decade
DP (900 Hz)	apparent depth	3 m
DP (7200 Hz)	apparent depth	3 m
FEO% (900 Hz)	apparent weight percent magnetite	0.25%

SONOTEK

Sonotek Limited
2410-5 Dunwin Drive, Mississauga
Ontario — Canada — L5L 1J9
telephone: (416) 828-6810
telex: 065-24733

Specification for the Proton Precession Magnetometer:

Sensitivity	±0.1 gamma for sample times of 1 second or longer ±1 gamma for sample times of less than 1 second
Range	20,000 to 100,000 gammas
Sampling Rate	Programmable in 0.1 sec steps from 0.3 to 2.0 sec (same as scan rate of data system)
Tuning	Automatic
Reference Frequency	Accuracy ±1 ppm at 25°C Stability 5 ppm/year
Auxiliary Output	Analog signal monitoring output (BNC)
Indicator	Polarize current LED monitor
Power	28±4 VDC. For typical sensor: 7 A max current, 50% duty cycle, 100 W average power
Physical Data:	
Signal Package	Width 241 mm (9.5 in), half-rack width
	Height 133 mm (5.25 in)
	Depth 254 mm (10 in)
	Weight 5 kg (11 lb)
Toroid Sensor	Diameter 150 mm (5.9 in)
	Height 170 mm (6.7 in)
	Weight 5.5 kg (12 lb)
Airfoil plus Toroid Sensor	Diameter 170 mm (6.75 in)
	Length 660 mm (26 in)
	Weight 9 kg (20 lb)

Totem 2A

VLF Electromagnetic airborne survey instrument

Multi channel

Specifications

Introduction.

The Totem-2A measures basically the same parameters and shares the same package configuration as the well established Totem-1A.

This new generation instrument, however, measures multiple parameters on two channels simultaneously, with less noise and greater accuracy. These advancements have been achieved while maintaining the simple installation and operating procedures of the 1A model.

The Totem-2A employs state of art digital and linear integrated circuits to implement the functions of crystal controlled phase locked loop frequency synthesizers, dual frequency heterodyne conversion and proprietary time domain sampling vector computation techniques.

Features.

The principal parameters measured are the change in total field and the vertical quadrature field. Parameters also available are the total field gradient (from sensors in two locations) and the horizontal quadrature field. The quadrature polarity is defined by the direction of flight relative to the field. The total and quadrature magnitudes are insensitive to sensor orientation in pitch, roll and yaw.

One obvious advantage of dual frequency operation is that primary sources can be selected to ensure good coupling with conductors of any orientation. Potential uses of the gradient mode are enhanced interline contouring and deliniation of multiple conductors with horizontal and vertical gradient respectively.

Specifications subject to change.

Primary source:	Magnetic field component radiated from VLF radio transmitters (one or two simultaneously).
Parameters measured:	Total field, vertical quadrature, horizontal quadrature, gradient.
Frequency range:	15kHz to 25.0kHz front panel selectable for each channel in 100Hz steps.
Sensitivity range:	130uV/m to 100mV/m at 20kHz, 3dB down at 14kHz and 24kHz.
VLF signal bandpass:	-3dB at ± 80Hz, ‹ 4% variation at ± 50Hz.
Adjacent channel rejection:	300 to 800Hz = 20 to 32dB, 800 to 1500Hz = 32 to 40dB, › 1500Hz › 40dB (for ‹ 2% noise envelope).
Out of band rejection:	10kHz to 2.5kHz = $5x10^{-4}$A/m to $5x10^{-1}$A/m ‹ 2.5kHz rising at 12dB/octave 30kHz to 60kHz = $5x10^{-4}$A/m to $8x10^{-3}$A/m › 60kHz rising at 6dB/octave (for no overload condition).
Output span:	± 100% = ± 1.0V
Output filter:	Time constant 1sec for 0 to 50% or 10% to 90%, noise bandwidth 0.3Hz (second order LP).
Internal noise:	1.3uV/m rms (ambient noise will exceed this).
Sferics filter:	Reduces noise contribution of impulse interference.
Electric field rejection:	‹ 0.5% error for 20m tow cable.
Controls:	Power switch, frequency selector switches (line & ortho) level controls (line & ortho), meter switch (total/quad) sferics filter switch.
Displays:	Meters (line & ortho), sferics light, overload light
Inputs:	Power, 23 to 32 Vdc fused 0.5Amp. Signal, Sensor upper, Sensor lower
Outputs:	Total, quad, gradient, multiplexed (line & ortho) Audio monitor, stereo line & ortho
Dimensions & weight:	Console 19" rack mounted, 4.5cm high x 34cm deep, 3.8kg. Sensor and pre-amplifier assembly 15cm dia. and 46cm long, 1.5kg.

Herz Industries Ltd.
197 Fenn Avenue
Willowdale/Ontario
M2P 1Y1
Tel: (416) 221-8908

HERZ Manufacturers of geophysical instruments

Appendix 2

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) Airborne Magnetics, EM, VLF

Township or Area Kenogaming Township

Claim Holder(s) Ingamar Explorations
Cedar Hill, Connaught, Ontario

Survey Company MPH Consulting/Dighem Ltd.

Author of Report W.E. Brereton, P.Eng.

Address of Author 2406-120 Adelaide Street W., Toronto

Covering Dates of Survey Oct./83-Feb./84 (linecutting to office)

Total Miles of Line Cut ----

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 20 Electromagnetic 40 Radiometric ______ (enter days per claim)

DATE: Feb. 6/84 SIGNATURE: [signature] Author of Report or Agent

Res. Geol. ______ Qualifications ______

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
P	652688
	652689
	652690
	652691
	652692
	652693
	652695
	652696
	652697
	653237
	653238
	653239
	653240
	653241
	653242
	653243
	653244
	653245
	653246
	653247
	653248
	653249

TOTAL CLAIMS 30

If space insufficient, attach list

MINING CLAIMS TRAVERSED - (cont'd.)

P - 653250

653251

653252

653253

653254

653255

653256

652800

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) VLF, Magnetics, EM

Instrument(s) Totem 2A VLF, Sonotek PMH 5010 Mag, Dighem III EM system

(specify for each type of survey)

Accuracy EM - 0.2 ppm, Magnetics - 1 gamma

(specify for each type of survey)

Aircraft used AS-350 Helicopter

Sensor altitude 30 m

Navigation and flight path recovery method Visual navigation

______

Aircraft altitude 45 m Line Spacing 200 m

Miles flown over total area 1000 km (600 miles) Over claims only 15 miles

Ministry of Natural Resources
Ontario

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

W8406-24

42A04NW0137 2.6379 KENOGAMING 900

Type of Survey(s) Airborne Mag, VLF, EM	**Township or Area** Kenogaming Twp.
Claim Holder(s) Ingamar Explorations Ltd.	**Prospector's Licence No.** T-836
Address Cedar Hill, Ontario	
Survey Company Dighem Limited/MPH Consulting Limited	**Date of Survey (from & to)** 17 10 83 – 23 10 83 (Day Mo. Yr.) — **Total Miles of line Cut** ---
Name and Address of Author (of Geo-Technical report) W.E. Brereton: 2406-120 Adelaide Street West, Toronto, Ontario M5H 1T1	

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 23 1984 MINING LANDS SECTION

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	40
	Magnetometer	20
	Radiometric	

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

RECEIVED JAN 18 1984 P.M.

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.
P	652688	40 EM only	P	653251	
	652689	"		653252	
	652690	"		653253	
	652691	40 EM only		653254	
	652693			653255	
	652695			653256	
	652696			652800	
	652697				
	653237				
	653238				
	653239				
	653240				
	653241				
	653242				
	653243				
	653244				
	653245				
	653246				
	653247				
	653248				
	653249				
	653250				
	652692	40 E.M. only			

RECORDED JAN 18 1984 Receipt No.

Total number of mining claims covered by this report of work. 30

For Office Use Only		
Total Days Cr. Recorded: 1680	Date Recorded: Jan 18, 1984	Mining Recorder: [signature]
	Date Approved as Recorded: 84.9.13	Branch Director: [signature]

Date	Recorded Holder or Agent (Signature)
Jan. 16/84	[signature]

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)
W.E. Brereton: 2406-120 Adelaide Street West, Toronto, Ontario M5H 1T1	Jan. 16/84	[signature]

Ministry of Natural Resources
Ontario

Geotechnical Report Approval

File 26379

Mining Lands Comments

-dan-

☑ To: Geophysics Mr. R. Barlow

Comments

☑ Approved ☐ Wish to see again with corrections | Date April 18/84 | Signature R. Barlow

☐ To: Geology - Expenditures

RECEIVED
SEP 10 1984
MINING LANDS SECTION

Comments

☐ Approved ☐ Wish to see again with corrections | Date | Signature

☐ To: Geochemistry

Comments

LD
Jopd.

☐ Approved ☐ Wish to see again with corrections | Date | Signature

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

1593 (81/10)

Our File: 2.6379

1984 02 22

Mr. Bruce Hanley
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 and Magnetometer) survey submitted on mining claims P 652688 et al in the Township of Kenogaming.

This material will be examined and assessed and a statement of assessment 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,

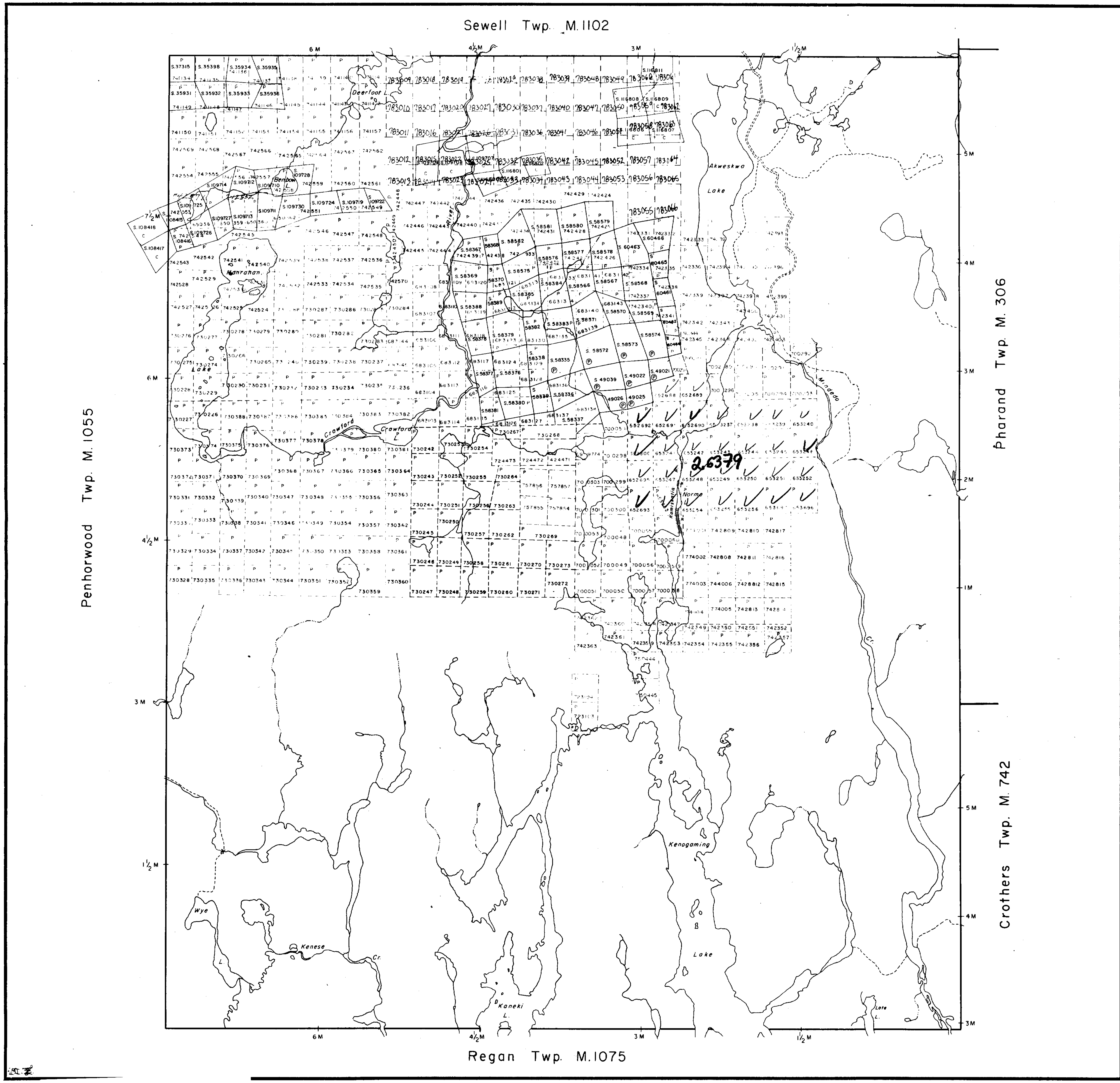
J.R. Morton
Acting Director
Land Management Branch

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

A. Barr:dg

cc: Ingamar Explorations
Cedar Hill
Connaught, Ontario
P0N 1A0

cc: W.E. Brereton
2[illegible]06 - 120 Adelaide Street West
Toronto, Ontario
M5H 1T1



THE TOWNSHIP
OF

KENOGAMING

DISTRICT OF
SUDBURY

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.

PLAN NO.- M.967

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

42A04NW8137 2.6379 KENOGAMING

200