REPORT OF EXPLORATION PROGRAM

BEARPAW MINING SYNDICATE

STRATHY TWP. PROPERTY, ONTARIO

INTRODUCTION

Bearpaw Mining Syndicate owns nine contiguous unpatented mining claims located in the south central part of Strathy Township, Ontario. The claims are numbered L.367801 to L.367809 inclusive and the property comprises approximately 360 acres.

EXPLORATION PROGRAM

A control system of base and picket lines was cut on the property. The base line is east-west, 6,130' long and begins at the east side of the property and proceeds west at an approximate central location. North-south picket lines were cut at intervals of 300' from this base line. The north part of claim 367804 was inaccessible because of flooding conditions at the present time. Including the base line a total of 11.35 miles of line was cut.

The control system of lines was used to conduct a magnetometer survey, an electromagnetic survey and a geological survey. The work was carried out during June, July and August of 1974.
METHOD OF EXPLORATION

MAGNETOMETER SURVEY

A Sharpe MF-1 Fluxgate magnetometer was used during the magnetometer survey. A base station was established at L+1/2W on the Base Line. A total of 566 readings were taken at stations spaced 100' apart on the picket lines. Daily and hourly diurnal check readings were taken and corrected for error. A normal correction of plus 500 gammas was applied to all readings. George Byles of Haileybury, Ontario, was instrument operator. The results of the survey were plotted on a map, scale of 1" = 200', and contoured using an interval of 200 gammas.

ELECTROMAGNETIC SURVEY

A Ronka EM-16 survey unit was used to conduct a VLF electromagnetic survey. The transmitting source used was Cutler, Maine at 17.8 KHz. All readings were taken facing north. A total of 497 stations was read at 100' spacing along the picket lines. George Byles of Haileybury, Ontario, was the instrument operator. The readings were plotted on a map scale of 1" = 200' and interpretation carried out.

GEOLOGY SURVEY

The property was geologically mapped on a scale of 1" = 200' using the system of lines for control.
RESULTS OF EXPLORATION PROGRAM

MAGNETOMETER SURVEY

In general the magnetometer survey has shown a background grain that is trending N.70° E. These probably demonstrate the diorite, andesite and rhyolite rocks and their trend. Interjected in this pattern are several high intensity and irregular patterns that disturb the background trend. These have picked out diabase intrusions that are disjoined and irregular because of faulting.

Localized medium intensity patterns probably represent elliptical shaped bodies of diorite.

A N. 10° E. to N.25° E fracture system is hinted at in the magnetic survey. This approximately parallel system of fractures is traversed by two major faults that trend N.25° W. across the central part of the property. No specific magnetic features from that of the geological and structural pattern were observed.

ELECTROMAGNETIC SURVEY

In the central part of Claim 367806 and on Lines 30W and 27W, a valid conductor is observed. To the east of this conductor and located on Lines 15W, 12W and 9W, in the northeast part of Claim 367804 a valid conductor is observed. Since the intervening lines 24W, 21W, and 18W,
between these two sets of conductors were not able to be cut because of deep water, continuity, if any, was not established. Valid one line conductors are observed on Line 6W, centre part of Claim 367803; Line 33W, southwest corner of Claim 367806; south end of Line 30W. In the south part of Claim 367801, features in the ground, if any, were not detected because of the influence of the hydroelectric power line and natural gas pipe line which were detected during the survey.

**Geology Survey.**

The country rocks on the property consist of interbedded volcanic flows of diorite, andesite (pillow lava and fine grained massive) and rhyolites. These rocks trend N.70° E. and are schisted in that direction and in an east-west direction. They have been tightly folded into a vertical attitude which has been further disturbed by faulting and fracturing to result in a complex geological assemblage. Some of these rocks have been bleached to a light colour and this is usually the result of alteration by some intruding rock which in this case probably was a rhyolite porphyry. Presumably such settings would be favourable locations for possible mineralized deposits, however no electromagnetic or magnetic features correlate with these features.

All of the above rocks have been intruded by younger diabase dikes trending east-west, but which have been disjointed and irregularly shaped due to subsequent faulting.
Topography trends indicate a fracture pattern in a N.10°E to N. 25° E. direction and this can be confirmed and integrated with the results of the magnetic survey. Both surveys also indicate two parallel major structures traversing the central part of the property in a N. 25°W. direction.

In the areas of the electromagnetic conductors no obvious mineralization or special features were observed, however in these areas also there is 95% overburden and swamp.

**SUMMARY AND CONCLUSIONS**

A series of N.70° E. trending volcanic rocks have been intruded by rhyolite porphyries which have altered the adjacent volcanic rocks. Subsequent diabase dikes have intruded all the above rocks in an east-west direction, and then, faulting and fracturing have resulted from forces acting in the area which have also schistened the country rocks and disrupted the regularity of the diabase dikes.

Although the alteration halos are considered favourable geology for ore deposits, no obvious mineralization was observed and no response to the electromagnetic survey was noted in these locations.

In the north part of the property two valid electromagnetic conductors were observed which could be continuous. This continuity was not established because deep water flooding by beavers prevented any of the surveys being done between the two conductors. Such conductors are likely due to pyrite which should carry values in gold as in other parts of this township. These are drill targets.
RECOMMENDATIONS

It is recommended that during the frozen season, electromagnetic and magnetic surveys be carried out over the flooded part of the property on the north part of Lines 18W, 21W and 24W. Establishment and definition of these electromagnetic conductors could produce an improved drill target.

Respectfully submitted,

Jack C. Willars, B.A.Sc., P.Eng.
Consulting Mining Geologist

New Liskeard, Ontario, November 19, 1974.
**GEOPHYSICAL - GEOLOGIC TECHNICAL DATA**

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

**Type of Survey:** Geological, Magnetometer, Electromagnetic

**Township:** Strathy Twp.

**Claim holder(s):** John A. Gore

**Author of Report:** Jack G. Willers, Consulting Geologist

**Address:** Box 160, New Liskeard, Ont.

**Covering Dates of Survey:** June, July and August, 1974 (Nov.)

**Total Miles of Line cut:** 11.35

### SPECIAL PROVISIONS

<table>
<thead>
<tr>
<th>CREDITS REQUESTED</th>
<th>DAYS per claim</th>
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</thead>
<tbody>
<tr>
<td>ENTER 40 days (includes line cutting) for first survey.</td>
<td></td>
</tr>
<tr>
<td>ENTER 20 days for each additional survey using same grid.</td>
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<tr>
<td>Geophysical</td>
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</tr>
<tr>
<td>-- Electromagnetic</td>
<td>10</td>
</tr>
<tr>
<td>-- Magnetometer</td>
<td>20</td>
</tr>
<tr>
<td>-- Radiometric</td>
<td>0</td>
</tr>
<tr>
<td>-- Other</td>
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<tr>
<td>Geological</td>
<td>20</td>
</tr>
<tr>
<td>Geochemical</td>
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</table>

### AIRBORNE CREDITS

(Special provision credits do not apply to airborne surveys)

- Magnetometer
- Electromagnetic
- Radiometric

**DATE:** Nov. 21, 1974

**SIGNATURE:** [Signature]

**PROJECTS SECTION**

**Res. Geol.:** 63.2165

**Qualifications on file:**

**Previous Surveys:** 63A 385, 63B 359 - 1960. 63B 359 - 1952 magnetic instrument

**Checked by:** [Signature] [date]

**GEOLOGICAL BRANCH:**

**Approved by:** [Signature] [date]

**GEOLOGICAL BRANCH:**

**Approved by:** [Signature] [date]

**MINING CLAIMS TRAVERSED**

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<th>NUMBER</th>
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<td>367801</td>
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<tr>
<td>367809</td>
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**TOTAL CLAIMS:** 9
Show instrument technical data in each space for type of survey submitted or indicate "not applicable".

**GEOPHYSICAL TECHNICAL DATA**

**GROUND SURVEYS**

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<tr>
<th>Number of Stations</th>
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<tr>
<td>Number of Readings</td>
<td>Mag.-566; E.M.-197</td>
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<tr>
<td>Station interval</td>
<td>100'</td>
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<tr>
<td>Line spacing</td>
<td>300'</td>
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<tr>
<td>Profile scale or Contour intervals</td>
<td>E.M. 1/50&quot; to 1/&quot;; Mag. 200 gamma interval (specify for each type of survey)</td>
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**MAGNETIC**

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<tr>
<th>Instrument</th>
<th>Sharpe MF - 1 Fluxgate</th>
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<tr>
<td>Accuracy - Scale constant</td>
<td>plus or minus 20 gamma</td>
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<tr>
<td>Diurnal correction method</td>
<td>Daily and hourly check stations and differences corrected</td>
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<tr>
<td>Base station location</td>
<td>Line 12 West on Base Line (also used as daily check station)</td>
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**ELECTROMAGNETIC**

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<td>Coil configuration</td>
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<td>Coils separation</td>
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<tr>
<td>Accuracy</td>
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</tr>
<tr>
<td>Method:</td>
<td>2 Fixed transmitter</td>
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<tr>
<td></td>
<td>1 Shoot back</td>
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<tr>
<td></td>
<td>1 In line</td>
</tr>
<tr>
<td></td>
<td>1 Parallel line</td>
</tr>
<tr>
<td>Frequency</td>
<td>Cutler, Maine 17.8 kHz (specify V.L.F. station)</td>
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<td>Parameters measured</td>
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**GRAVITY**

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<tr>
<td>Corrections made</td>
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<td>Base station value and location</td>
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<td>Elevation accuracy</td>
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**INDUCED POLARIZATION -- RESISTIVITY**

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<td>Frequency</td>
<td>Range</td>
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<tr>
<td>Power</td>
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</tr>
<tr>
<td>Electrode array</td>
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<tr>
<td>Electrode spacing</td>
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</tr>
<tr>
<td>Type of electrode</td>
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NOTES

This Township lies within THE CORPORATION OF THE IMPROVEMENT DISTRICT OF TEMAGAMI. File 760449.

AREA WITHDRAWN FROM STAKING
S.R. - SURFACE RIGHTS M.R. - MINING RIGHTS
S.R. within stippled portion east of Hwy II and north of the south shore of East Lake reserved for TEMAGAMI TOWNSITE subject to Sec. 36(a) of Mining Act R.S.O. 1960. File 176049.

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NC 2022/66 File 3996

SECTION ORDER No. 42(R.S.O. 1960)

MAY 13/65 S.R. & M.R. 119939
JUNE 26/65 M.R. 3996

Islands in Lake Temagami NOT OPENED FOR STAKING.

SAND and GRAVEL
Areas shown thus -"-" the establishment of pits and quarries prohibited by Order of the Minister of Municipal Affairs (M.T.E.I.G.A.) O.Reg. 20/68. File 3996.

OC 2022/66 File 3996

MINING LANDS
DATE OF ISSUE
NOV 25 1974
MINISTRY OF NATURAL RESOURCES

LEGEND

HIGHWAY AND ROUTE No.
OTHER ROADS
TRAILS
SURVEYED LINES:
TOWNSHIPS, BASE LINES, ETC.
LOT LINES
UNSURVEYED LINES:
PARCEL BOUNDARY
MINING CLAIMS, ETC.
RAILWAY AND RIGHT OF WAY
UTILITY LINES
NON-PERENNIAL STREAM
FLOODING OR FLOODING RIGHTS
SUBDIVISION
ORIGINAL SHORELINE
MOUTH OF WOODED
WATERS

SCALE: 1 INCH = 40 CHAINS

MINISTRY OF NATURAL RESOURCES
Surveys and Mapping Branch
Date:
March 17th
Queen's Park, Toronto

DISPOSITION OF CROWN LANDS

TOWNSHIP
DISTRICT
NIPISSING
MINING DIVISION
SUDBURY

Ontario

MINISTRY OF NATURAL RESOURCES
Surveys and Mapping Branch
Date:
March 17th
Queen's Park, Toronto

PLAN No. M.596

Strathcona Township

Strathcona TP. M.595

Strathcona TP. M.595

Strathcona TP. M.595

Strathcona TP. M.595
ELECTRICAL DATA

STATION LINES: CUTLER, MAINE (17.8kHz) READINGS TAKEN FACING NORTH

DIP PROFILE 1/50
QUADRATURE PROFILE 1/50
DIP VALUES RECORDED TO THE LEFT
QUADRATURE VALUES RECORDED TO THE RIGHT
NEGATIVE VALUES PLOTTED TO THE LEFT
POSITIVE VALUES PLOTTED TO THE RIGHT

CONDUCTOR AXIS
INSTRUMENT OPERATOR: S. BYLES

BEARPAW MINING SYNDICATE
STRATHY TOWNSHIP, ONTARIO

SCALE: 1"=200'

VLF-EM SURVEY

CUTLER, MAINE