

MINERAL EXPLORATION ENGINEERING CONSULTANTS

GEOLOGISTS - ENGINEERS - SCIENTISTS

Box 244 - NORTH BAY, ONTARIO

MAY 10th , 1969

GEOPHYSICAL REPORT ON GROUND MAGNETIC SURVEY
OF KARL GRABER MINERAL CLAIMS , STRATHCONA TWP.
TEMAGAMI AREA , ONTARIO

PROPERTY , LOCATION , ACCESS

The property consists of the following mineral claims , located in Strathcona Township , Province of Ontario :

T 61199 to T 61210 Inclusive* 12
L 104930 to L 104940 Inclusive* 11
L 104796 to L 104800 Inclusive* 5
L 104899, L 104890 *, T 60549+ 3

The claims are situated approximately four and one half miles south of the town of Temagami, skirted on the west boundary by highway No. 11 , crossed centrally by the Trans Canada Pipeline and old Ferguson highway , and skirted on the east by the H.E.P.C. power line . The Ontario Northland Railway passes within one mile from the northeast claim boundary . Aircraft can be landed on Lowell Lake which rests centrally and southerly within the claim group .

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GEOLOGY The oldest rocks are Keewatin in age and consist of rhyolite ,tuffs and related pyroclastics. They are covered by intermediate to andesitic flow rock and which exhibit considerable interbedding . Finally a capping of Cobalt Conglomerate rests unconformably on the prior series .


The rocks are intruded by Algonan acid bodies which cut the flow rocks - the Conglomerate is intruded by Keweenawan diabase .

Copper ,gold and silver mineralization in the area occur mainly in the acid flow rocks and related pyroclastics especially adjacent to the lower contact of the Nipissing diabase sill or its feeder dykes .

Mineralization within the present claim group consists of pyrite , pyrrhotite , chalcopyrite and magnetite . Chalcopyrite (copper) mineralization is associated with the other three types of mineral. Gold values as well as silver appear to be in concentrations in proportion to the chalcopyrite content of the sample tested .

GEOPHYSICAL SURVEY

The survey was carried out during the winter months from January 4th to May 2nd 1969 using a Barringer Research " Precession Magnetometer " Model GM-102-A of sensitivity ten gammas .



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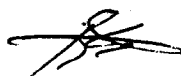
It involved two stages , a land located grid consisting of just over nineteen miles of line , and an extension of this grid over Lowell Lake totalling an additional approximate eight miles of line .

The land located grid is shown on the enclosed Map No. 5281 along with the magnetic data . A separate overlay is used to depict the geophysical interpretation of this data and is appended hereto .

The data covering the area of Lowell Lake will be depicted on Map No. 5282 . Four main zones of increased magnetic gradient are to be noted .

GEOPHYSICAL INTERPRETATION

Twenty two magnetic anomalies have been outlined as shown on the interpretation of Map No. 5281 . The first sixteen are magnetic highs and the last six are magnetic lows . Three additional magnetic highs appear to the north and south of anomaly "12" , the southern two of which show an area of steep magnetic gradient as an intervening low. This series is thought to be related to a northeasterly trending fault parallel to the three northeasterly trending interpreted faults "A" , "B" , and "C" . Fault "B" is regional and intense offsetting both the east-westerly trending rhyolite and conglomerate contact (west block south) and the east - westerly trending "f" fault (West block north) This fault system involving the "A", "B" and "C" faults is probably



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related to the northeasterly trending contact of the Algomian granite mass which skirts the west claims of the group immediately west of the survey area .

Anomalies 1 to 11 inclusive occur between the "A" and "B" faults and are thought to be caused by mineralization as observed in the vicinity of anomaly 3 which returned 17 feet of 2.2 % copper and approximately \$ 2.00 in gold and silver associated with pyrite , pyrrhotite and magnetite . They appear to be contact metamorphic deposits of these minerals and aligned along the early east-westerly trending faults "d", "e" and "f" and minor parallel intervening faults . The metallizing solutions , however , probably originated in the deep-penetrating "A" and "B" faults . Anomaly 3 occurs at 800 feet east and seven hundred south (see grid) and is flanked to the south by anomaly 1 , the conglomerate contact and the intersection of two major faults as described above . Because of the extremely favourable geology in the immediate area, anomaly 1 is considered to be of prime importance .

A continuation of the strike direction of anomaly 2 and 1 along the "f" cross-fault projects to anomaly 12 which occurs partly below the interpreted conglomerate formation . This added structural control could be most significant for increased mineral deposition because of its " impounding effect " .



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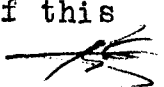
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A large area centering at 200 N and 6000 E is of generally reduced magnetic intensity and is considered to indicate an acid intrusive mass below the conglomerate series. A small magnetic low centering at 100 N and 4200 East is a similarly occurring blind intrusive body. Magnetic lows from 17 to 22 inclusive are within this area and may represent non magnetic concentrations of pyrite and chalcopyrite or apophysis of the intrusive body itself. Thus magnetic anomaly 16, occurring between magnetic lows 17 and 18, is strikingly anomalous since it is a magnetic high. It may well represent a replacement concentration of some magnetite and/or pyrrhotite similar to observed mineralization occurring in anomaly 3 near the west end of the survey area.

A northeasterly trending diabase dyke is thought to be intruded from depth into a fault which parallels the "A", "B" and "C" swam and separates the two blind acid intrusive bodies as noted above. It also intersects the "h" and "i" cross-faults. Anomalies 14 and 15, though of modest relief, are considered important because of this exceptional geological setting.

Four major anomalous zones are noted below the waters of Lowell Lake. The "23" zone appears to occur along the strike continuation of the "i" cross-fault west of anomaly 14 (see map 5281). Zone "24" occurs in the southwest portion of Lowell Lake and along a strong regional fault passing through Little Lowell Lake, the southwest bay of the lake and paralleling the above discussed "i" fault. . . An offist continuation of this



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fault contains anomalous area "26" at the extreme east end of Lowell Lake .

Zone " 25 " is related to a strong southeast trending fault which marks the main lake bottom and can be traced west from the lake where it causes an extreme topographic valley .

Much pyritization with associated pyrrhotite and chalcopyrite deposition is noted on the shore of Lowell Lake south and west of anomalous area " 24 " and leads one to think that anomaly 24 may represent a major concentration of this mineralization .

RECOMMENDATIONS & CONCLUSIONS

The prospects of uncovering a small high grade orebody such as occur in the area (Copperfields) are excellent but the concept of including such zones in a larger area of lower grade and low cost miningⁿ methods is most intriguing . I therefore recommend that :

- 1- The west half of the survey area be geologically mapped and concurrently developed by stripping , trenching and limited packsack drilling to explore for high grade copper, gold and silver ore deposits and the intervening terrane sampled to explore the possibility of opening up an extensive mining operation related to the contact metamorphic region .
- 2- That geological mapping and related development be carried out in the vicinity of the remaining anomalous areas - conduct limited Mercury Halo surveying .
- 3- Diamond drill the targets that contain coincident favourable

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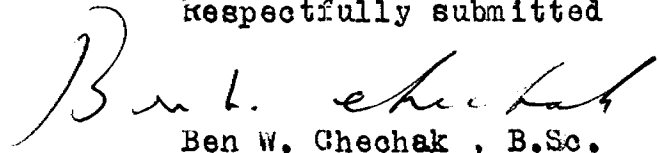
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geophysical indications related to a conducive geological setting for ore deposition .

4- Carry out some lake bottom sampling for Mercury Halo surveying during the summer months to be followed by limited E.M. surveying on the ice this winter . Unusual geophysical indications should be tested by a programme of diamond drilling during the winter months .

Points 1 and 2 will require an expenditure of approximately \$ 5,000.00 . Point 3 will involve a minimum expenditure of \$ 30,000.00 while point 4 will require an additional \$ 30,000.00

Respectfully submitted

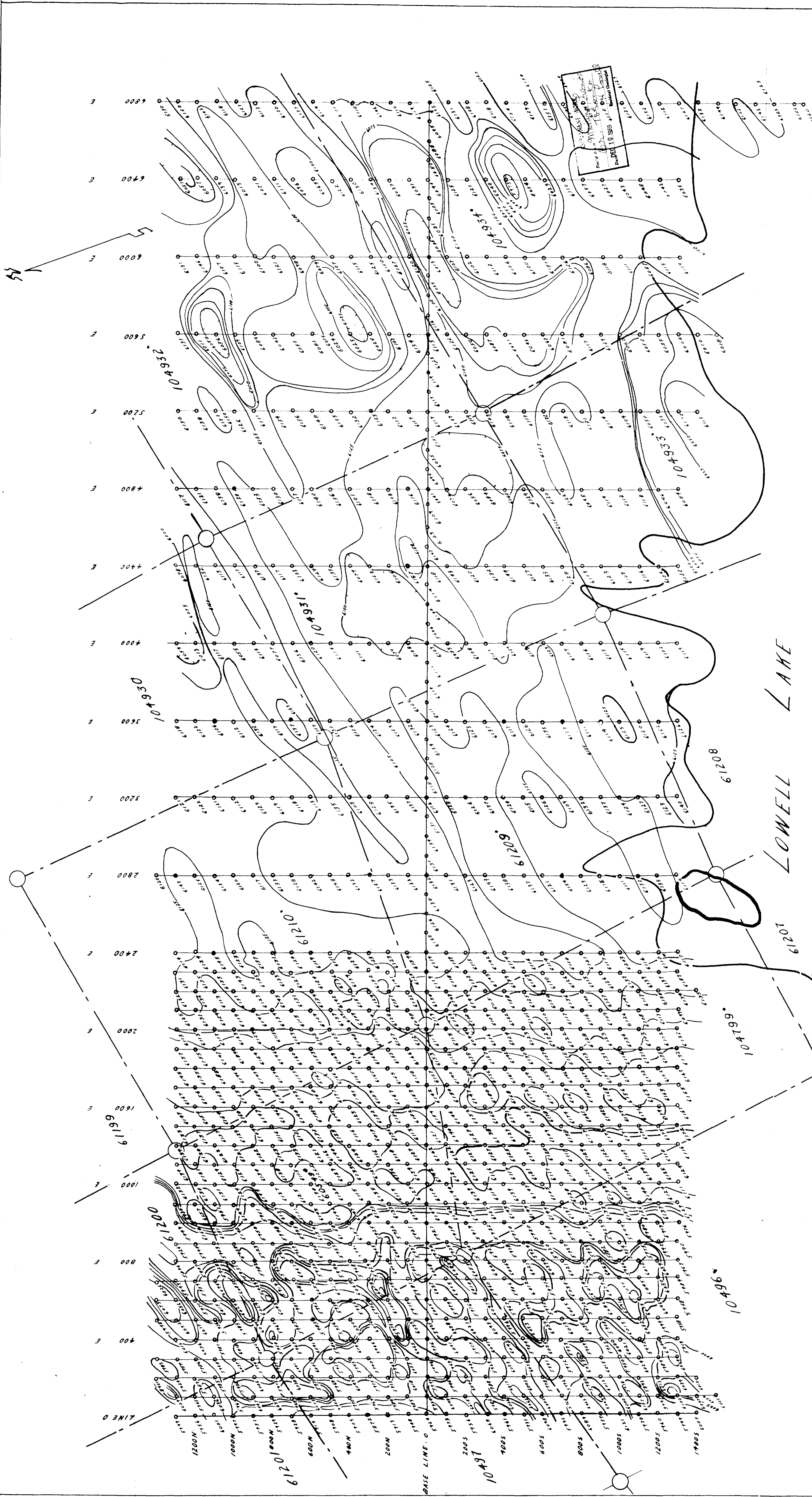

Ben W. Chechak , B.Sc.

CONSULTING GEOLOGIST

for

MINERAL EXPLORATION &

ENGINEERING CONSULTANTS



MAGNETIC SURVEY OF M. GRABER PROPERTY
 NORTH & WEST OF LOWELL LAKE
 STRATHCONA TOWNSHIP, TEMAGAMI AREA,
 PROVINCE OF ONTARIO

by
 MINERAL EXPLORATION & ENGINEERING CONSULTANTS
 SCALE 1" = 200'

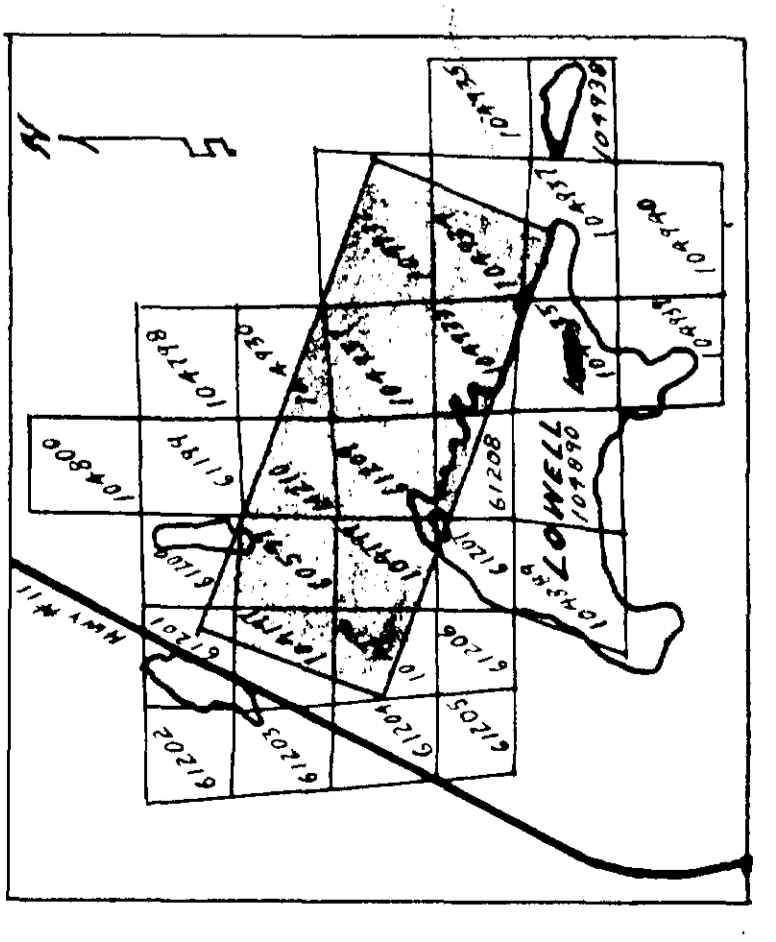
MAY 10 24, 1969

No. 5281

B. L. Schell

B.M.C. 23-2550

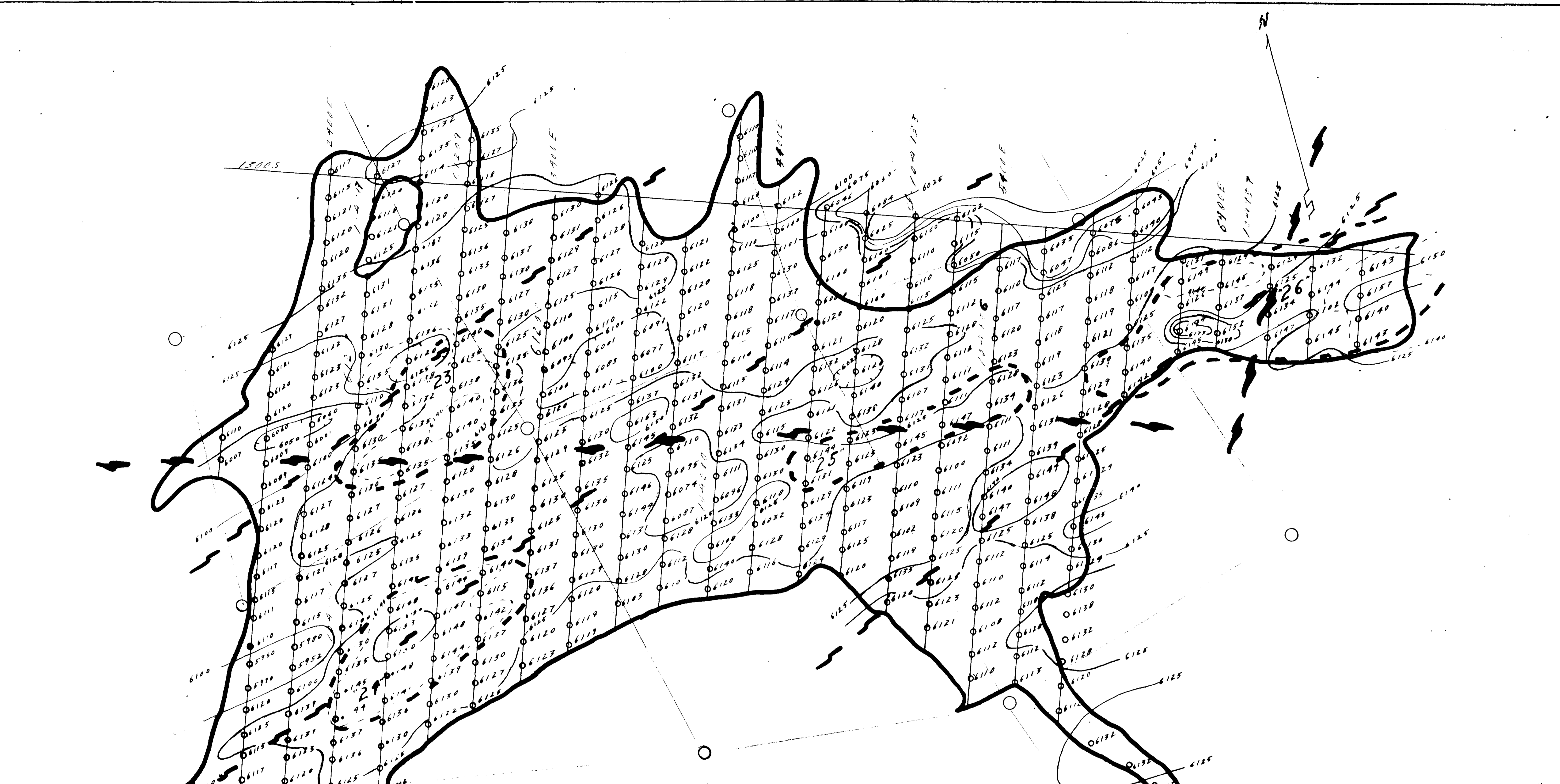
CLAIM GROUP



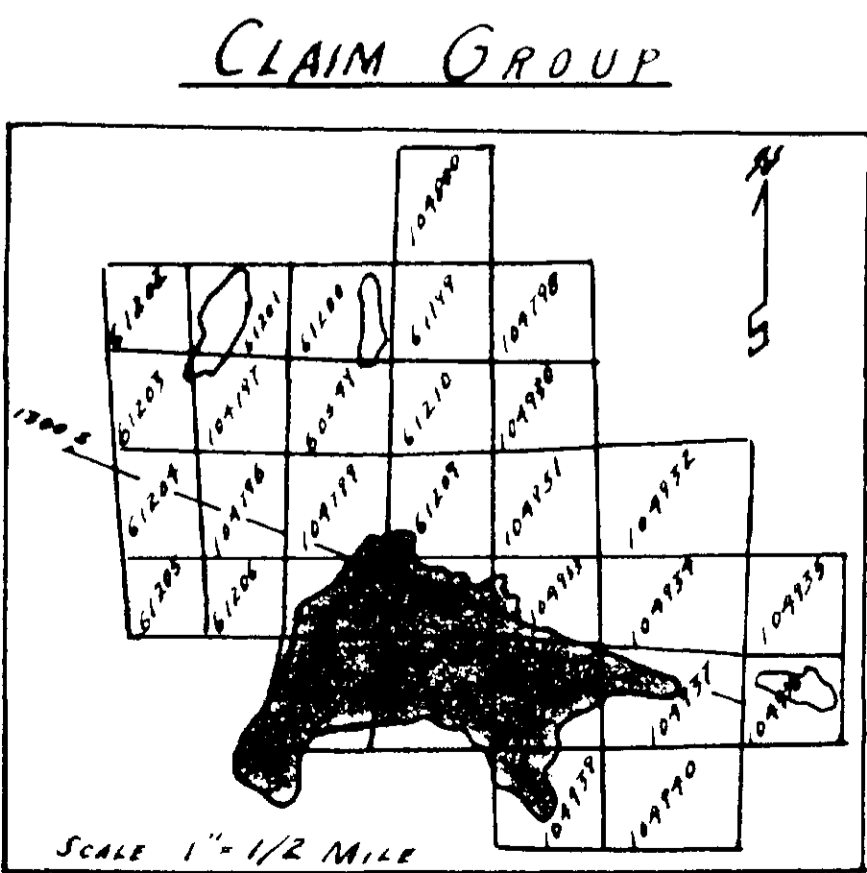
Scale 1" = 1/2 Mile



200



ASSESSMENT WORK
 Part of Report M.A. 2870
 Date JAN 2 1970
 Michael Geologist



MAGNETIC SURVEY OF K. GRABER PROPERTY

LOWELL LAKE
 STRATHCONA TOWNSHIP, TEMAGAMI AREA,
 PROVINCE OF ONTARIO

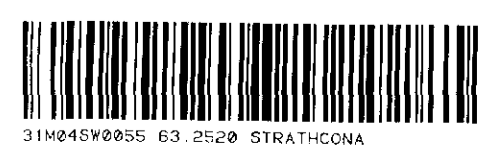
by
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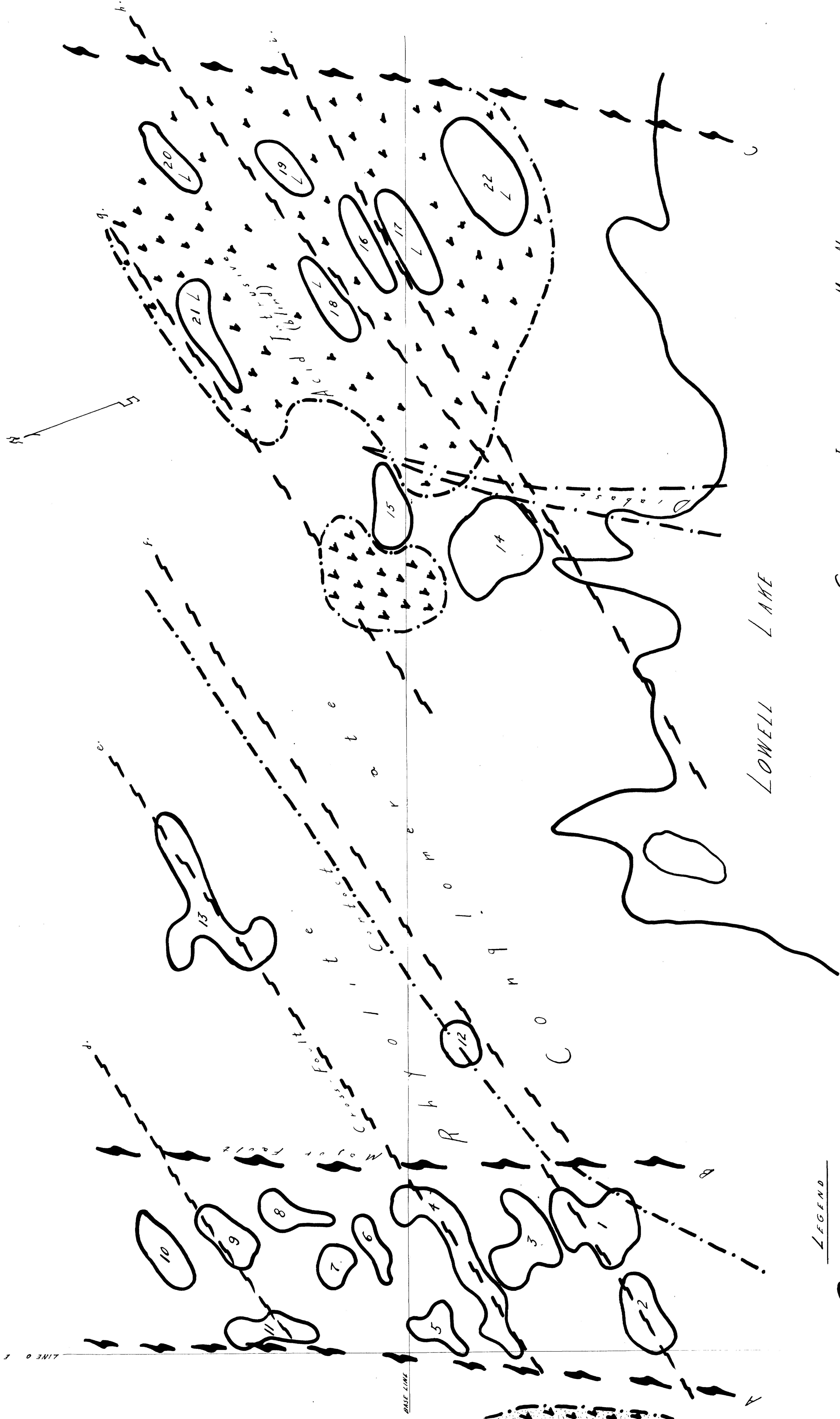
SCALE 1" = 200'

MAY 10th, 1969

No. 5282

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GEOPHYSICAL INTERPRETATION - MAP No. 5281

LEGEND

3 - ANOMALOUS AREA (HIGH)

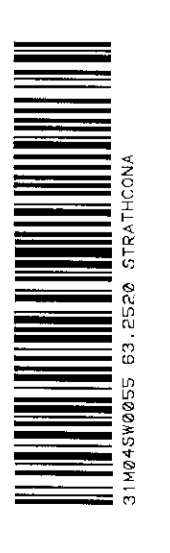
L - MAGNETIC LOW

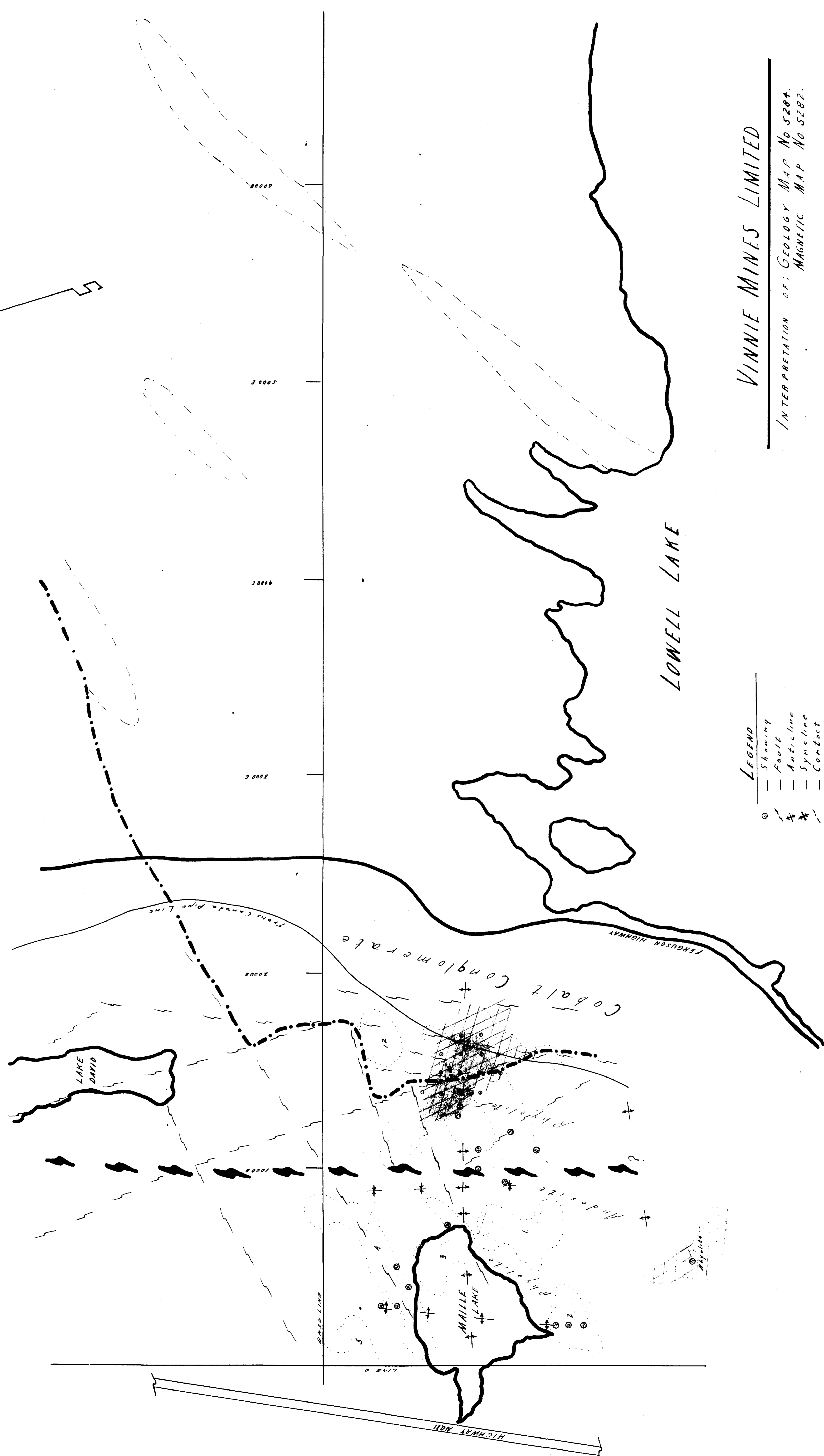
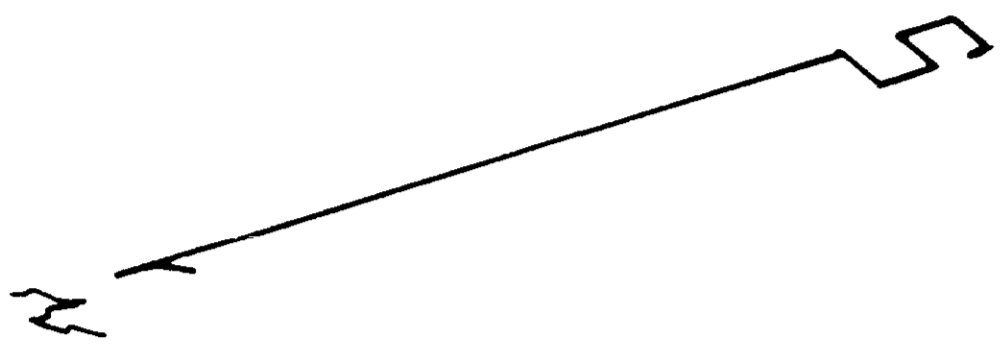
- FAULT

- - - - - GEOLOGICAL CONTACT

M.E. F. E.C.
 MARCH 10, 1969
 MAY 3-4, 1970

Bon L. e. h. e. l.





- LEGEND**
- Showing
 - Fault
 - Anticline
 - Syncline
 - Contact
 - Magnetic Anomaly
 - Mercury Halos
 - Diamond Drilling
 - Recommended
 - Vertical D.D.H.

VINNIE MINES LIMITED

INTERPRETATION OF: GEOLOGY MAP NO. 5284.
MAGNETIC MAP NO. 5282.

NOV. 22, 1969
MAY 3, 1970

ME & EC

B. L. ...

