

Report on the Geol

Conducted on the

Copconda Mines LTD 52E095W0033 63.2117 MANROSS



010

Whitefish Bay Area - Lake of The Woods
Kenora Mining Division - Province of Ontario

SUMMARY

Twenty-six electromagnetic anomalies were outlined on the property of Copconda Mines Limited. Ten of these exhibit qualities which are interpreted to represent conductive material in the bedrock of the property. Several of the ten anomalies appear to represent extensions of known mineralized zones.

CONCLUSIONS

Electromagnetic anomalies V2, V3, V4, V5, V6, V8, V10, V15, V16 and V17 are diagnostic of anomalies caused by sulphide mineralization in the bedrock of the property.

The anomalies are either covered by overburden or they are located in the lake bed of the Lake of the Woods. They are located in a geological environment favourable for the presence of base metal mineral deposition.

RECOMMENDATIONS

It is recommended that at least one drill hole be bored into each of the aforementioned anomalies in order to ascertain whether or not they are due to sulphide mineralization. If any significant base metal mineralization is present in any of the holes, then additional drilling, along strike and at regular intervals of the anomaly would be required.

A minimum of 3000 feet of diamond drilling is envisaged in the initial recommended program. Certain of the recommended holes must await winter conditions in order to take advantage of lake ice as a drilling platform.

In addition it is recommended that the property be geologically mapped and prospected this summer in order to ascertain and aid in determining the cause and importance of the many other anomalies outlined.

The estimated cost to carry out the above recommended work is \$25,000.00 minimum.

PROPERTY

The property of Copconda Mines Limited consists of eighteen (18) contiguous, unsurveyed mining claims numbered K-38113 to K-38130 inclusive and patented Island 528P.

XERO
COPY

XERO
COPY

XERO
COPY

Total area of the claim group is about 720 acres, of which 560 acres are water claims.

LOCATION. ACCESS, ETC.

The property is situated about and encircles French Narrows, in the Whitefish Bay Area of the Lake of the Woods, Kenora Mining Division, in the Province of Ontario.

Kenora, essentially a resort town, is located 12 miles north of the property. The Trans Canada Highway and the main line of the Canadian Pacific Railways services the town.

The property is easily reached direct from Kenora, either by boat, windjammer or aircraft.

TOPOGRAPHY

The land portion of the property is relatively flat, with low rising ridges, seldom exceeding 50 feet above lake level. It is wooded with a light growth of spruce, poplar and alders.

Rock outcrop is plentiful and in other areas, overburden is relatively light.

GEOLOGY

Regional - the greenstone sequence of rocks in the Shoal Lake - Lake of the Woods area consists of Keewatin-type volcanics and sedimentary rocks, isoclinally folded about steeply plunging east to northeast trending fold axis.

The volcanic rocks are readily divided into a basic and acid series, with the latter consisting essentially of pyroclastics.

Three major anticlines together with three intervening synclines dominate this area.

Structural domes occupied by granite masses are present in the area. The layered volcanic and sedimentary rocks face outwards and away from the margins of these dome structures.

Property - the claim group is underlain by an east-west striking sequence of basic and acid volcanic rocks. The basic volcanic rocks consist of fine-grained, massive, pillowed and ellipsoidal lavas, with minor basic tuffaceous sediments. The acid volcanic rocks consist mainly of tuff and agglomerate. There is some evidence that the acid pyroclastics may be welded ash flows.

Intruding the volcanic sequence on the property are sill-like and tabular bodies of diorite. In addition, minor granite and lamprophyre dikes intrude the volcanic rocks.

The claim group straddles the south limb of a westerly plunging anticline. The core of the anticline consists of basic volcanics, with acid volcanics along the limbs.

The dip of the strata is steep to the south.

Shearing is common and more or less trends parallel to the fold axis.

Economic Geology - Pyrite-pyrrhotite and chalcopyrite mineralization occur in two locations on the property.

The first, designated as the main zone, is of possible economic interest. It outcrops on the west part of an island on claim K-33114, near the water's edge. The sulphides consist of disseminations and solid stringers infilling fractures and replacing bedded chloritic tuffaceous and cherty sediments. The mineralization occurs over a width of 20 feet. The full width of the zone is masked by overburden.

The mineralized zone strikes S80°E, astronomical and dips 60 degrees south to vertical. Sulphide content of the zone varies from 5 to 25% by volume.

Two chip samples, representing the mineralization in place, returned the following assays:-

<u>Sample No.</u>	<u>Gold oz/ton</u>	<u>Silver oz/ton</u>	<u>% Copper</u>	<u>% Nickel</u>
1	Trace	Nil	0.22	0.05
2	Trace	Nil	0.42	0.03

The rock formations immediately to the south of the mineralized zone consist of altered pillowed lavas and diorite. It would appear that the diorite is intrusive. To the east, the diorite may abut against the mineralized zone. There may be some genetic relationship of the mineralization to the intrusive diorite.

Some of the pyrite appears to be nodular or concretionary in nature. Consequently, there may be some stratigraphic control to the mineralization.

The other mineral occurrence is present near the water's edge, on the south shore of the island on claim K-33117. It consists of disseminated pyrite, pyrrhotite and minor chalcopyrite in a basic fragmental. The zone strikes S80°E, astronomical and dips about 83 degrees, south.

GEOPHYSICAL SURVEYS

Electromagnetic Survey. This survey was conducted using the McPhar 1000/5000 cycle equipment. This technique measures the inclination or dip of the resultant magnetic field in degrees. A majority of the vertical loop anomalies were checked by a single or several survey traverses using Ronks horizontal loop equipment.

Magnetic Survey. The magnetic survey was conducted using the Sharpe MF-1 fluxgate magnetometer.

Results of the magnetic survey are shown on the accompanying plan to the scale of 1 inch equals 200 feet.

Discussion of Geophysical Results

Electromagnetic Survey

Twenty-six electromagnetic anomalies were outlined in the survey and these are depicted on the accompanying plan as V1 to V26 inclusive. Corresponding horizontal loop anomalies are designated as H1 to H26 inclusive.

The anomalies outlined are tabulated on the following sheet, as to length, width, strike and dip, magnetic correlation, conductivity and to possible cause of each.

Anomalies V2, V3, V4, V5, V6, V8, V10, V15, V16 and V17 are worthy of investigation by trenching and/or diamond drilling in order to determine if economic sulphide mineralization is the cause of these.

Magnetic Survey

The main feature of the survey is the sharp contrast in susceptibilities of the north and south parts of the property. Geologically, this feature is the main contact between basic and acid volcanic rocks. The contact is somewhat irregular in outline and strikes more or less east-west.

Mainly in the basic lava sequence and along the contact area, numerous intrusive bodies of diorite and gabbro are present. These stand out as tabular and somewhat elongated magnetic anomalies of intensities in the range of 2000 to 5000 gammas.

The trend of the isomagnetic lines indicates the strike of the Keewatin rock to vary on the Cepsonda property from east-west to S70°E, astronomic.

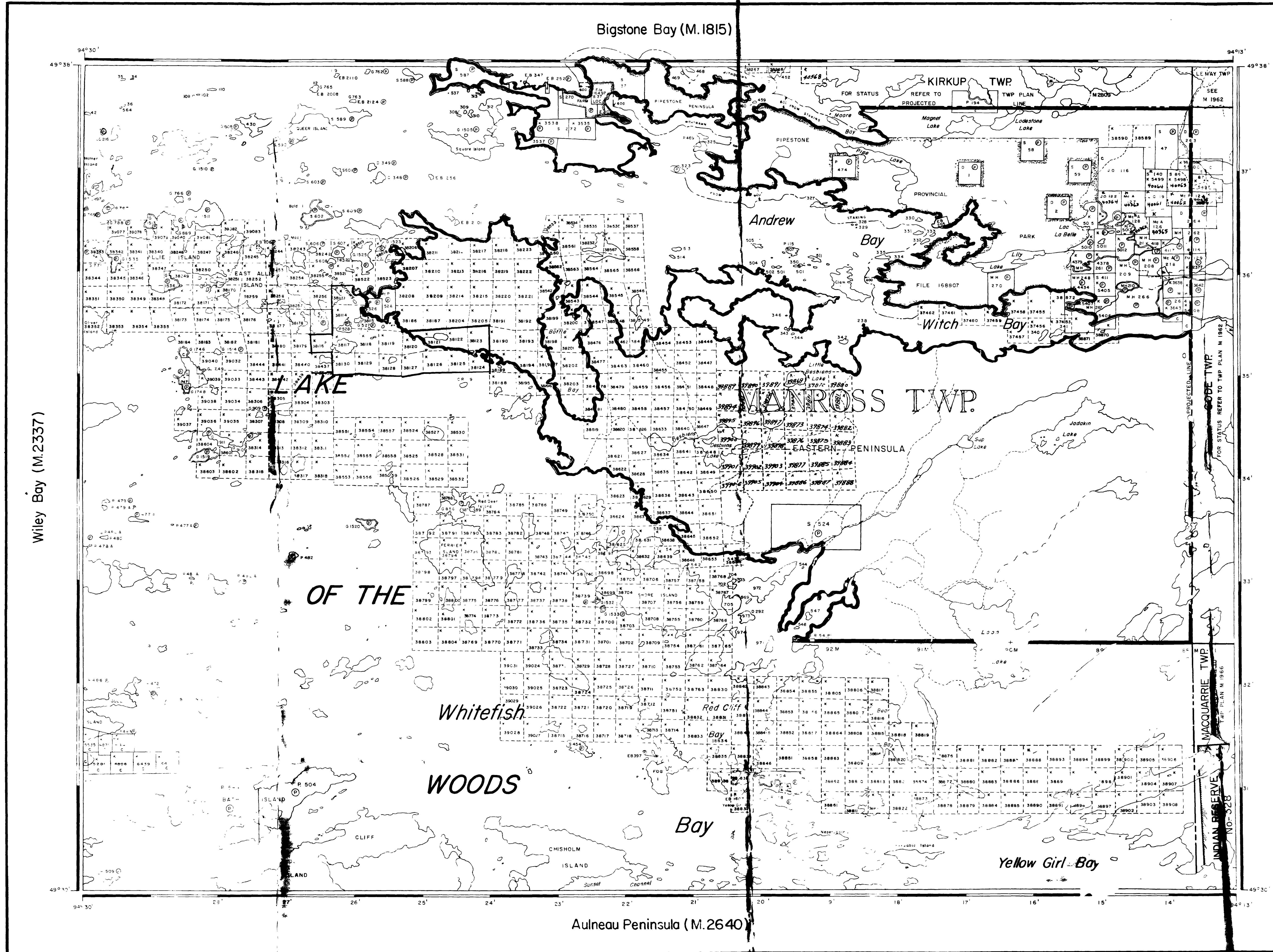
Respectfully submitted

M. S. M. CONSULTANTS LIMITED



Toronto, Ontario,
June 22, 1966

Michael Zurowski, B.Sc., P. Eng.



AREA OF
WHITEFISH BAY
 &
MANROSS TWP.
 (LAKE OF THE WOODS)
 DISTRICT OF
 KENORA

KENORA
 MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

- ORIENTED LAND ⊙
- CROWN LAND SALE ⊙
- LEASES ⊙
- LOCATED LAND ⊙
- LICENSE OF OCCUPATION ⊙
- MINING RIGHTS ONLY ⊙
- SURFACE RIGHTS ONLY ⊙
- ROADS ⊙
- IMPROVED ROADS ⊙
- KINGS HIGHWAYS ⊙
- RAILWAYS ⊙
- POWER LINES ⊙
- MARSH OR MUSKUG ⊙
- MINES ⊙
- CANCELLED ⊙
- TRAILS ⊙

NOTES

- 400' Surface Rights Reservation Around
 All Lakes & Rivers
- Reserve Flooding Rights Up To 1064' Above
 Mean Sea Level On All Lands Bordering On
 Lake Of The Woods File 4922 Vol 1
- Pipestone Provincial Park Shown Thus
 Withdrawn From Staking.
- Islands In The Lake Of The Woods Thereto
 Do Not Form Part Of Manross Twp.
- Boundary Of Manross Twp Shown Thus

DATE OF ISSUE

APR 27 1967

ONTARIO DEPT. OF MINES

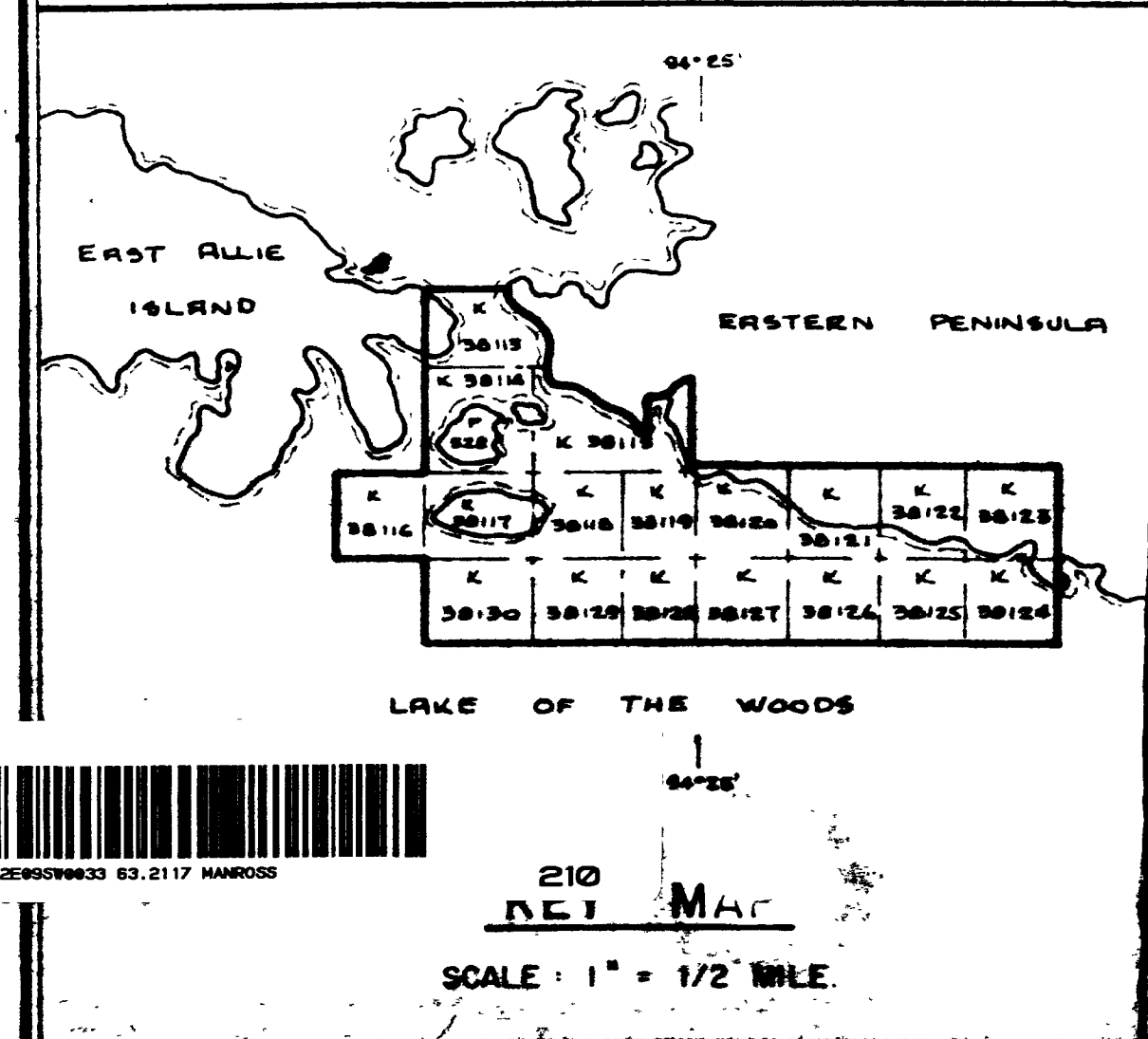
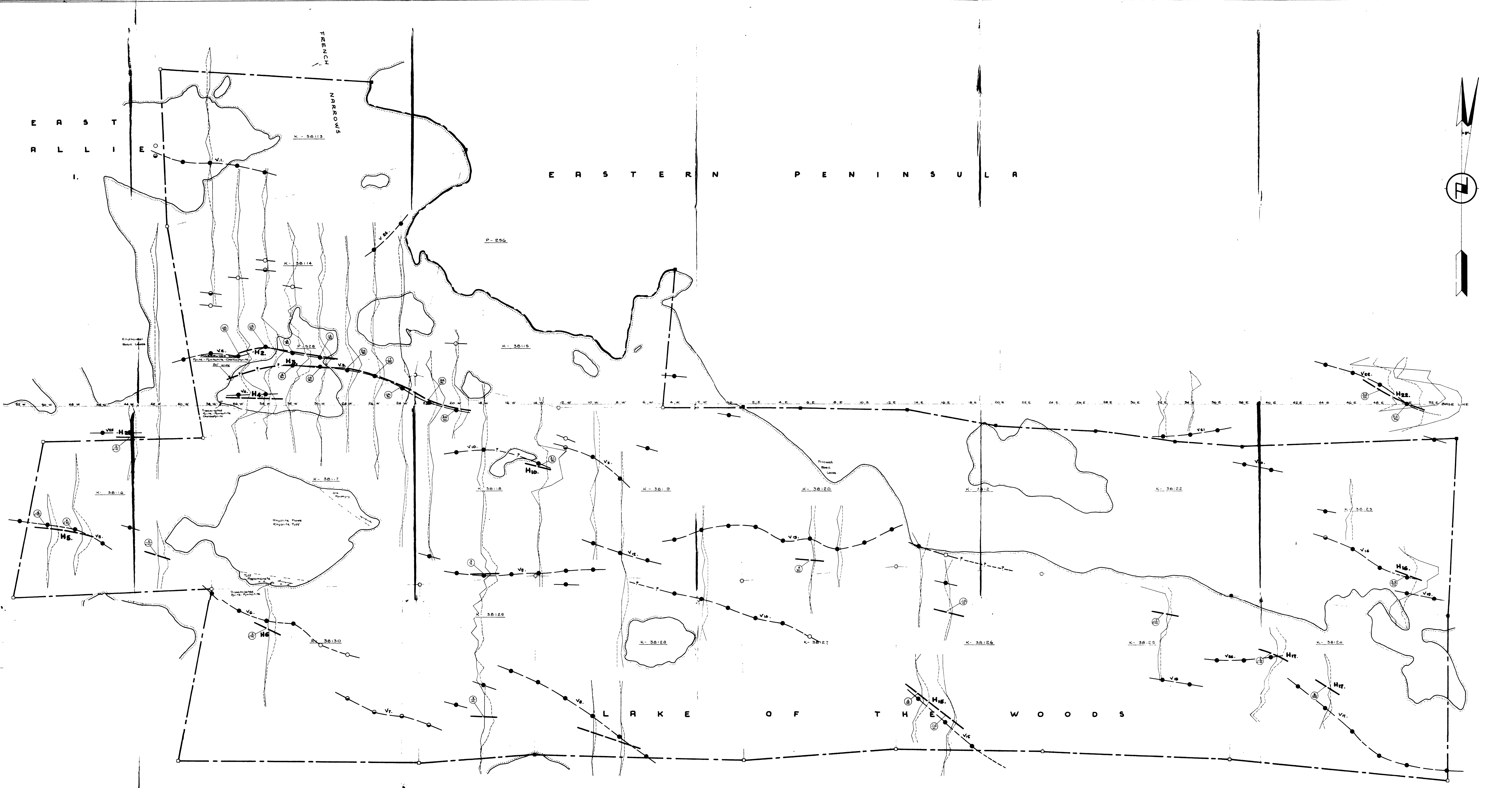
ONT. DEPT. OF MINES
 MINING LANDS BR.

THIS MAP FOR CHECKING
 PURPOSES ONLY - MUST
 NOT BE SOLD.

PLAN NO.-M.2338

DEPARTMENT OF MINES
 -ONTARIO-





S Y M B O L S

- IN PHASE COMPONENT OF SECONDARY FIELD POSITIVE READINGS PLOTTED TO LEFT OF THE LINE, NEGATIVE READINGS PLOTTED TO RIGHT OF THE LINE.
- - - - - OUT OF PHASE COMPONENT OF SECONDARY FIELD POSITIVE READINGS PLOTTED TO LEFT OF THE LINE, NEGATIVE READINGS PLOTTED TO RIGHT OF THE LINE.
- H₁ - - - - - AXIS OF HORIZONTAL E.M. CONDUCTOR.
- V₁ - - - - - AXIS OF VERTICAL LOOP E.M. CONDUCTOR.
- ⊕ - - - - - IN PHASE, OUT OF PHASE RATIO OVER WIDTH OF ANOMALY.

W. J. ...

COPCONDA MINES LIMITED

WHITEFISH BAY AREA — KENORA MINING DIVISION — PROVINCE OF ONTARIO

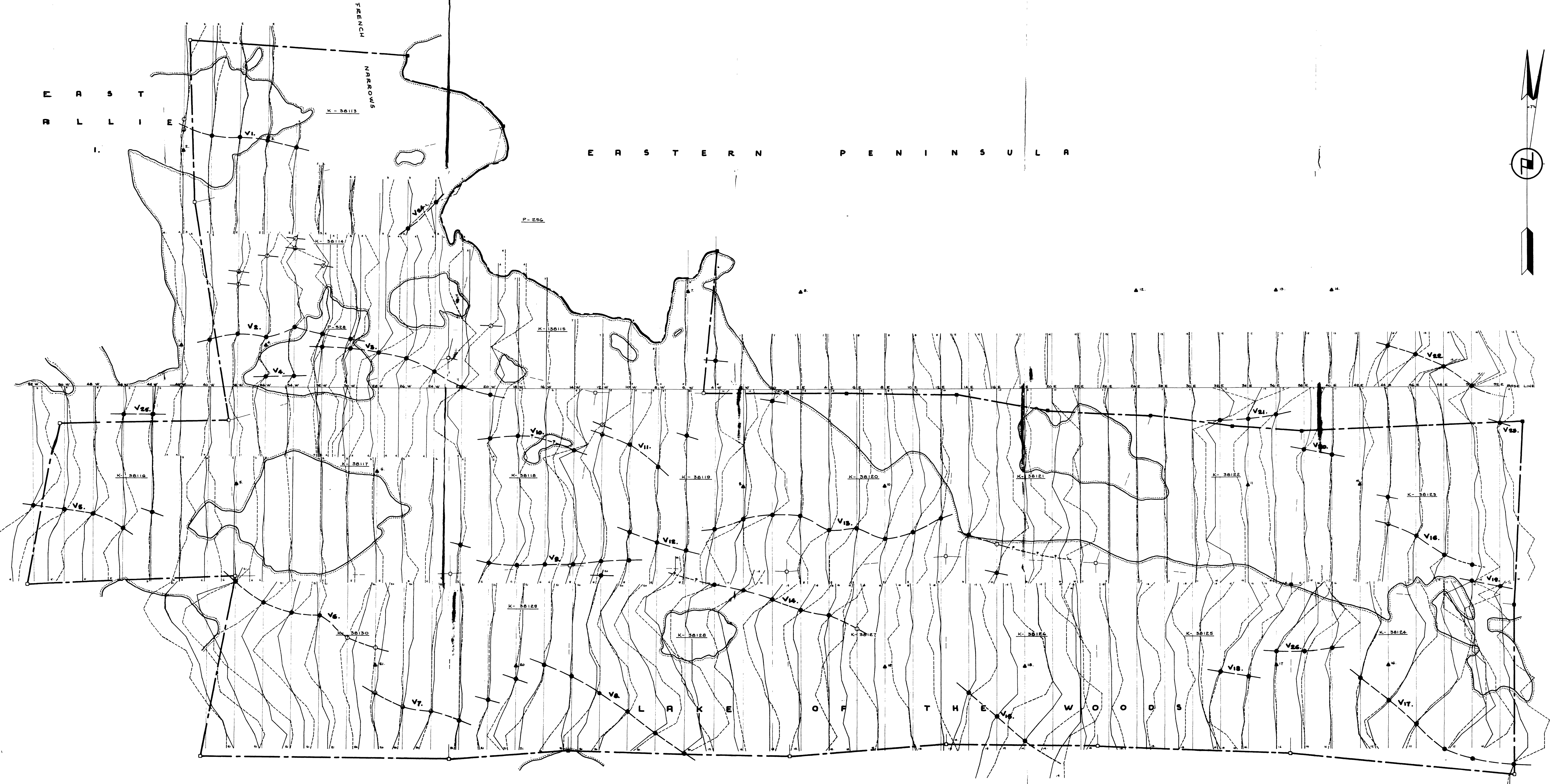
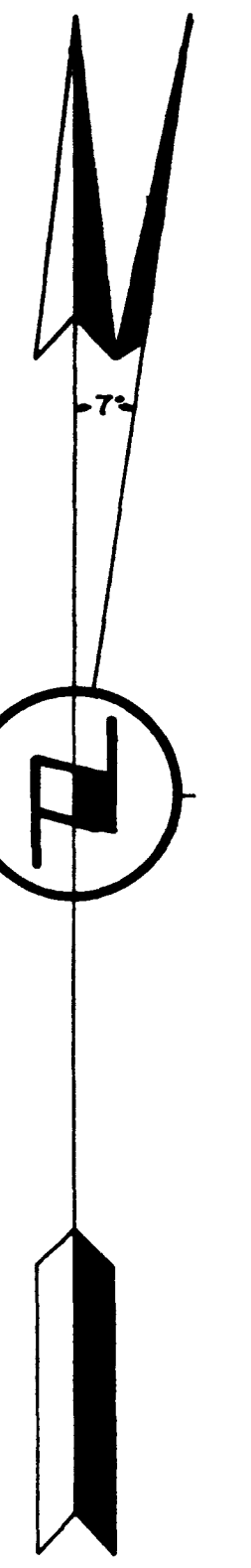
PLAN SHOWING HORIZONTAL LOOP SURVEY TRAVERSES & AXIS OF VERTICAL LOOP ANOMALIES.

DATE: APRIL 15, 1966 SCALE: 1 INCH = 200 FEET DRAWN BY: *W. J. ...*

M.E.M. CONSULTANTS LIMITED

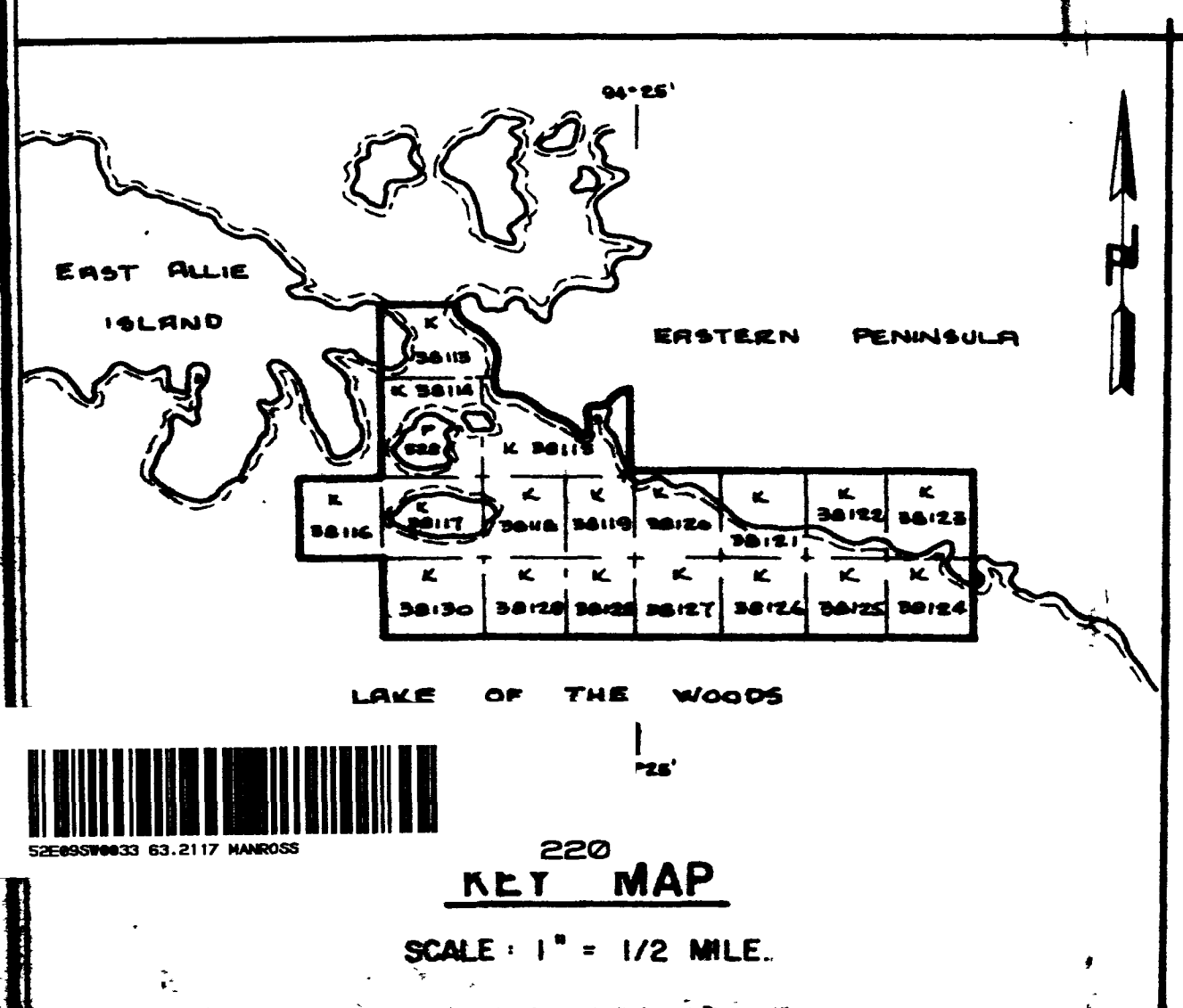
E A S T
R A L L I E

E A S T E R N P E N I N S U L A

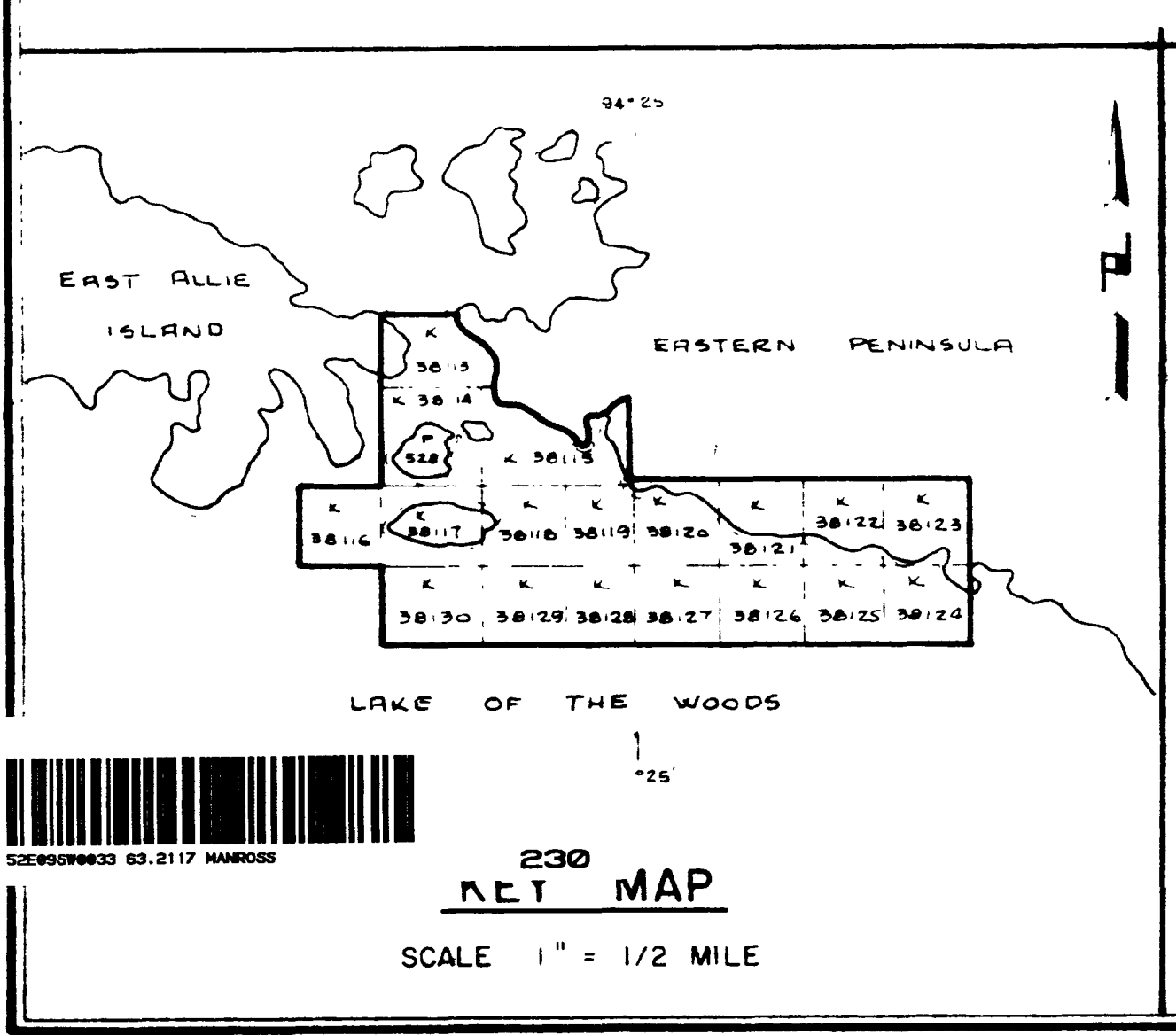
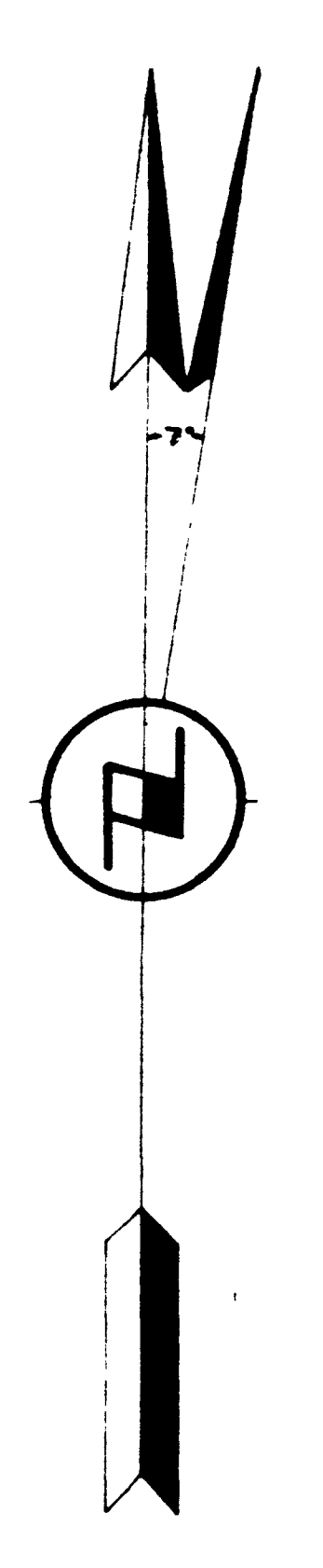
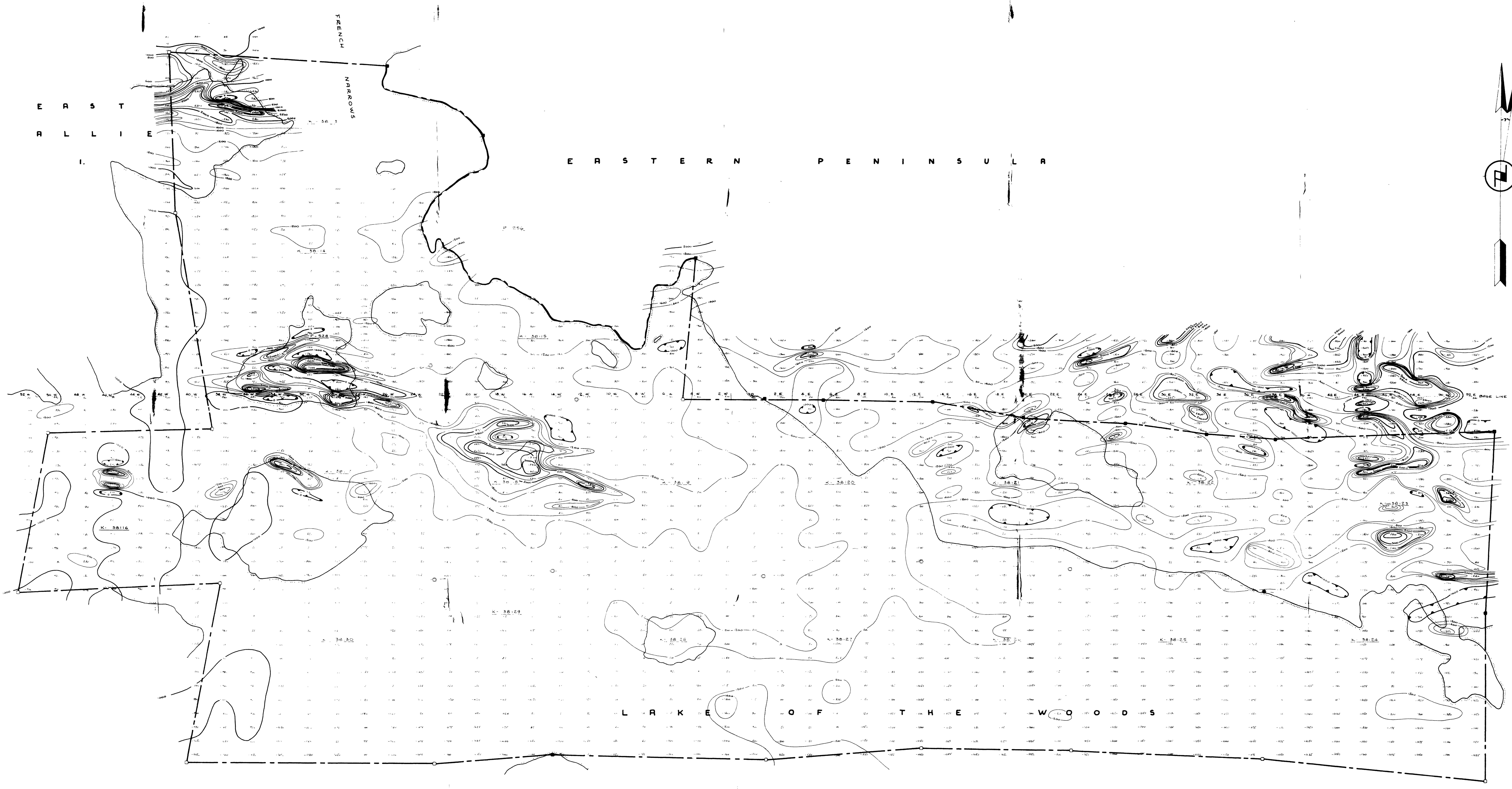


S Y M B O L S

- PROFILE OF 1000 CYCLE PER SECOND READINGS OF THE INCLINATION OF THE RESULTANT MAGNETIC FIELD IN DEGREES; NORTH INCLINATIONS PLOTTED TO RIGHT OF THE LINE, SOUTH INCLINATIONS PLOTTED TO LEFT OF THE LINE. PROFILE SCALE: 1" = 20 DEGREES.
- PROFILE OF 5000 CYCLE PER SECOND READINGS OF THE INCLINATION OF THE RESULTANT MAGNETIC FIELD IN DEGREES; NORTH INCLINATIONS PLOTTED TO RIGHT OF THE LINE, SOUTH INCLINATIONS PLOTTED TO LEFT OF THE LINE. PROFILE SCALE: 1" = 20 DEGREES.
- AXIS OF COINCIDENT 5000 AND 1000 CYCLE FREQUENCY RESPONSE.
- AXIS OF 1000 CYCLE FREQUENCY RESPONSE.
- AXIS OF 5000 CYCLE FREQUENCY RESPONSE.
- TRANSMITTER LOCATION.



COPCONDA MINES LIMITED		
WHITEFISH BAY AREA — KENORA MINING DIVISION — PROVINCE OF ONTARIO		
PLAN OF VERTICAL LOOP ELECTROMAGNETIC SURVEY		
DATE: APRIL 15, 1966	SCALE: 1 INCH = 200 FEET	DRAWN BY: <i>[Signature]</i>
M.E.M. CONSULTANTS LIMITED		



SYMBOLS
 - MAGNETIC COMPONENT IN EARTH'S MAGNETIC FIELD IN GAUSS.
 - ISOMAGNETIC LINE.

COPCONDA MINES LIMITED		
WHITEFISH BAY AREA — KENORA MINING DIVISION — PROVINCE OF ONTARIO		
PLAN OF MAGNETOMETER SURVEY		
DATE: APRIL 15, 1966	SCALE: 1 INCH = 200 FEET	DRAWN BY: <i>[Signature]</i>
M.E.M. CONSULTANTS LIMITED		

63-2117