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PROJECTS UNIT.

ELECTROMAGNETIC SURVEY

NORLAC MINES LIMITED

ROWAN LAKE AREA

DISTRICT OF KENORA

ONTARIO

April 15, 1974

J. D. McCANNELL

The directors
Norlac Mines Limited
Suite 520
25 Adelaide Street East
Toronto, Ontario

Gentlemen:

The following report describes the results of an electromagnetic survey conducted over a group of four mining claims located at Rowan Lake, District of Kenora, Ontario. These four claims formerly made up a portion of the ground held by Wampum Gold Mines Limited and on which a 200 foot shaft was sunk in 1940-41.

Reports prepared at the time that the Wampum Gold Mines Limited exploration and development program was underway, indicate that the gold is associated with mineralized shear zones striking North 70° West..Two shear zones are mentioned in these reports, one on the north side of a porphyry mass and the other, 1,050 feet to the south on the south side of the same porphyry. The recent electromagnetic survey was carried out in an effort to locate and trace this shearing.

A fairly strong east-west striking conductor was indicated by the E.M. survey, in the south part of claim 315417 and about six hundred feet south of the shaft, A second but weaker conductor strikes in a slightly north of east direction through the north part of claim 314991. If extended on strike this conductor would be about five hundred feet north of the shaft, which would place the conductors about eleven hundred feet apart. More geological information is required before it can be determined whether or not these two conductors coincide with the contacts between the porphyry and volcanic rocks. Both conductors extend through areas of low wet muskeg and the electromagnetic readings could have been considerably influenced by topographic conditions.

J. D. McOANNELL

PROPERTY, LOCATION AND ACCESS

The property covered by the electromagnetic work discussed in this report, consists of four unsurveyed mining claims forming a contiguous block and located south of Rowan Lake, Kenora Mining Division, Ontario. The claims included in the group are further described as follows: K-314991, 314992, 315416 and 315417.

Rowan Lake is located about fifty miles east and south from Kenora. It can be reached by a circuitous water route from highway 615, or more directly by aircraft from one of several air bases in the Lake of TheWoods area.

TOPOGRAPHY

The topography of the four claims covered by this report is mostly flat terrain with considerable swamp and muskeg in the south and southwest parts. Claim 314992, which is the northwest claim in the group, is largely covered by the waters of Wampum Lake. This lake drains into a large stream that flows in an easterly direction through the south part of the property.

GENERAL GEOLOGY

The general geology of the Rowan Lake area is shown on Map No. 44e, published by the Province of Ontario Department of Mines in 1935 on the scale of one inch to one mile. This map, called the Rowan-Straw Lakes Area, accompanies Volume XLIV, Part 4 by James E. Thomson. The geology of the area is also shown on Map 2115, the Kenora-Fort Francis Sheet, a composite geological map published by the Province of Ontario on the scale of one inch to four miles.

Map 44e shows the area of the claims group to be underlain by volcanic greenstones composed largely of andesite and basalt

flows with considerable development of hornblende and chlorite schist. Bands of sedimentary iron formation are not uncommon in these volcanic rocks.

Large masses of Algomian type granite are shown on the geological plans as intruding the older volcanic rocks. These volcanics have also been intruded by small dikes and sills of pre-Algomian gabbro and diorite as well as late Algomian quartz porphyry. Gold is sometimes associated with quartz veins and zones of silicification in the immediate vicinity of the quartz porphyry intrusions.

ELECTROMAGNETIC SURVEY

An electromagnetic survey was conducted over the four mining claims discussed in this report. This work was carried out during the period February 20th to 26th, 1974, using a Geonics EM-16 instrument. North-south picket lines were cut at 100-foot intervals to provide control for this geophysical work and the electromagnetic readings were taken at 100-foot intervals along these lines. A total of 14 miles of lines were cut and chained and surveyed by the E.M. method.

A fairly strong east-west striking conductor was indicated by the survey as extending through the south part of claim 315417. A second but weaker conductor was indicated as extending in a slightly north of east direction through the north part of claim 314991. There is a weak suggestion that this second conductor continues in a more easterly direction to pass a few hundred feet north of the old shaft in claim 315417. This would put the two conductors almost parallel and about 1,000 or 1,100 feet apart. Both conductors extend through areas of considerable swamp and muskeg and there could have been considerable topographic influences

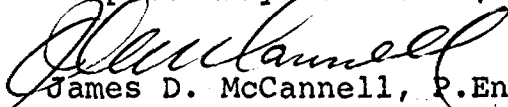
on the electromagnetic observations.

CONCLUSIONS AND RECOMMENDATIONS

Previous reports on this ground, when it was held by Wampum Gold Mines Limited, state that gold is associated with mineralized shear zones striking about north 70° West. Two zones are mentioned, one on each side of a porphyry dike or plug and about 1,050 feet apart. Before it can be determined whether or not the two conductors indicated in the present electromagnetic survey coincide with these shear zones, more detailed information on the geology of the property will have to be acquired. Also an effort should be made to locate the records of surface and underground work carried out by Wampum Gold Mines Limited.

It is recommended that a geological examination be made of the ground when the surface is free of snow and an attempt made to correlate the geophysical results with the geology. As there is considerable low wet muskeg and swamp in the area of both the conductors, there is the possibility that the electromagnetic survey results were influenced by the topography.

Respectfully submitted,


James D. McCannell, P.Eng.,
Consulting Geologist



Toronto, Ontario
April 15, 1974.

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations 711 Number of Readings 711
Station interval 100 feet
Line spacing 100 feet
Profile scale or Contour intervals 1 inch = 40%
(specify for each type of survey)

MAGNETIC

Instrument _____
Accuracy - Scale constant _____
Diurnal correction method _____
Base station location _____

ELECTROMAGNETIC

Instrument Geonics EM-16
Coil configuration _____
Coil separation _____
Accuracy + or - 1°
Method: Fixed transmitter Shoot back In line Parallel line
Frequency 17.8 kHz Cutler Maine
(specify V.L.F. station)
Parameters measured in phase out of phase

GRAVITY

Instrument _____
Scale constant _____
Corrections made _____
Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION -- RESISTIVITY

Instrument _____
Time domain _____ Frequency domain _____
Frequency _____ Range _____
Power _____
Electrode array _____
Electrode spacing _____
Type of electrode _____

ROWAN LAKE

DISTRICT OF
KENORA

KENORA
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

- PATENTED LAND Ⓟ
- 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 MUSKES —
- MINES *
- CANCELLED C

NOTES

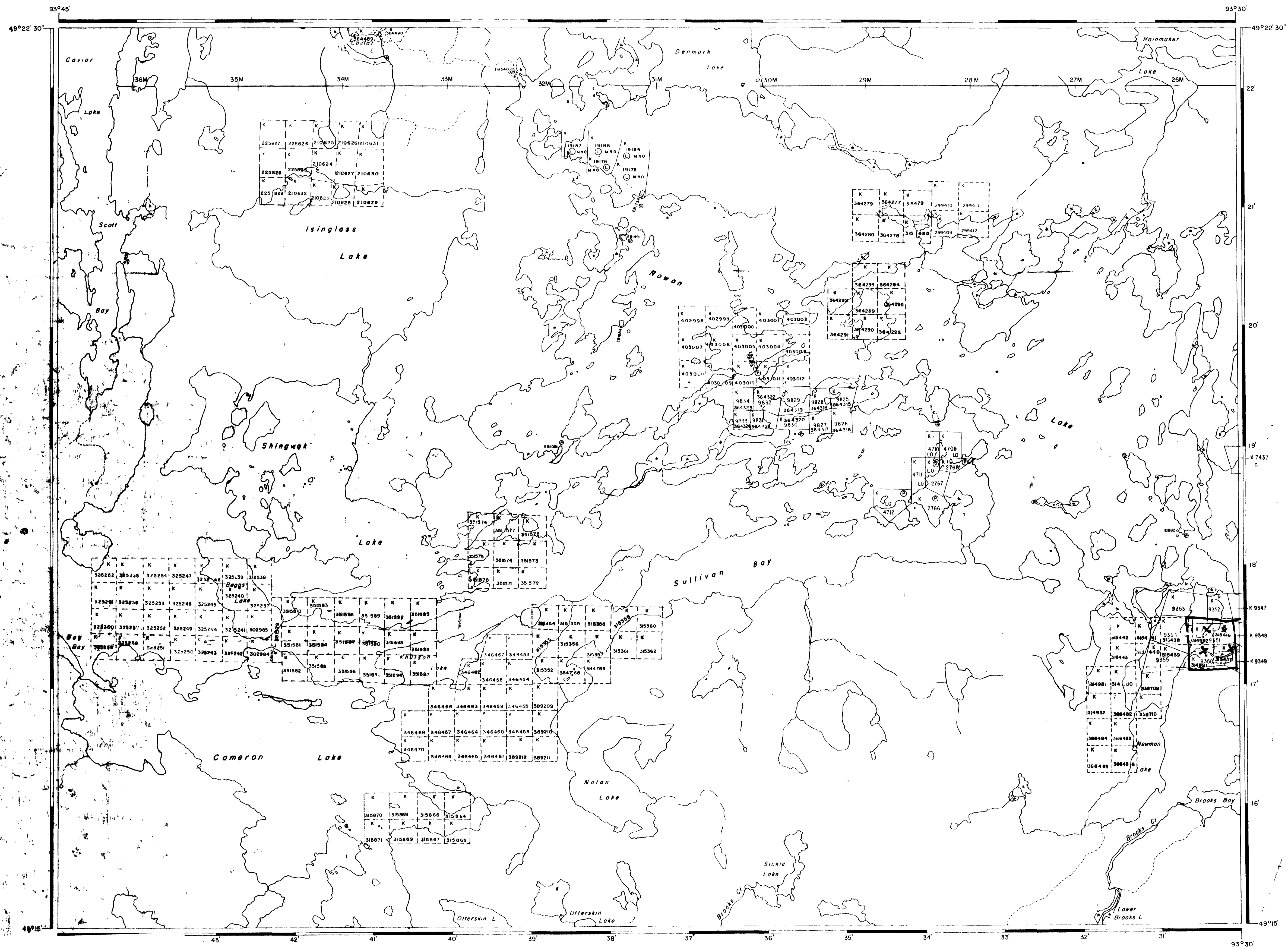
400' Surface Rights Reservation around all lakes and rivers.

MINING LANDS
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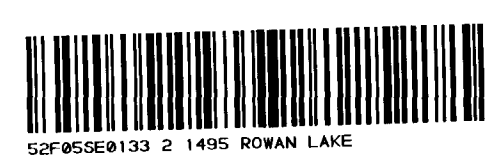
NATIONAL TOPOGRAPHIC SERIES 52 F 5

PLAN NO. **M.2580**

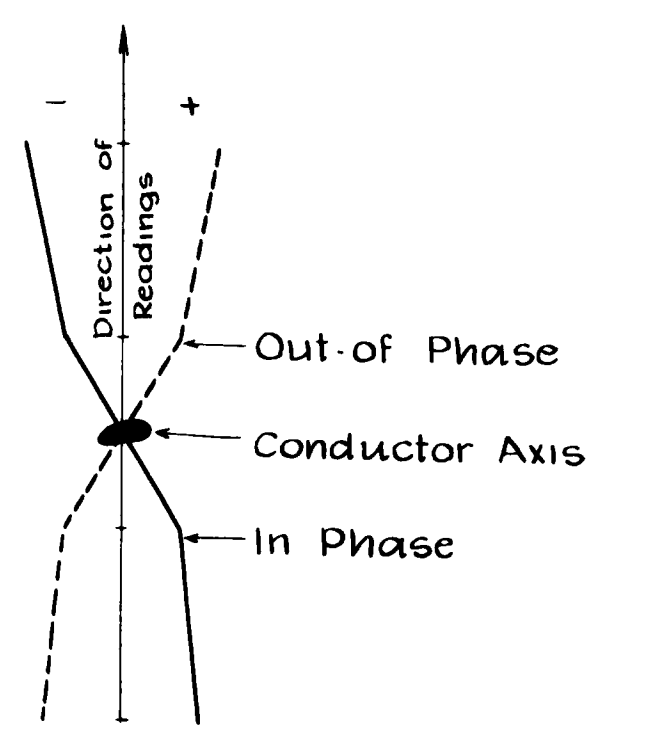
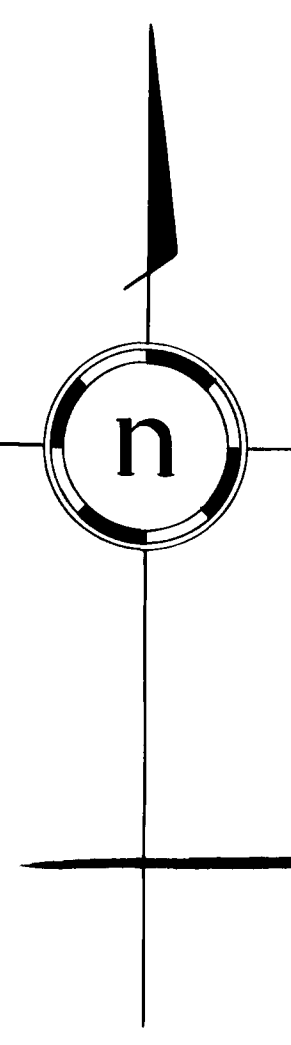
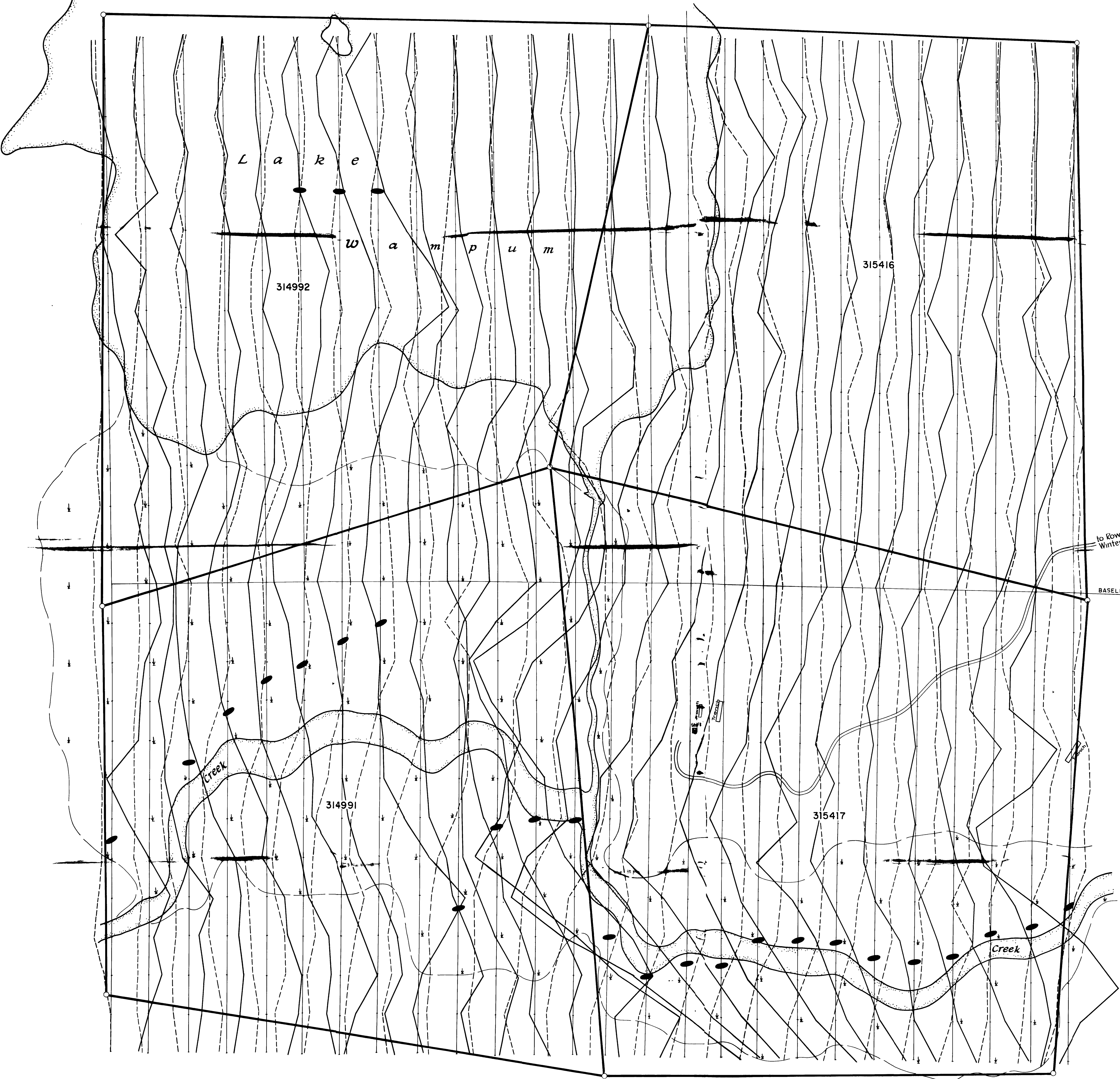
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH



2.1495



L0+00 L1+00E L2+00E L3+00E L4+00E L5+00E L6+00E L7+00E L8+00E L9+00E L10+00E L11+00E L12+00E L13+00E L14+00E L15+00E L16+00E L17+00E L18+00E L19+00E L20+00E L21+00E L22+00E L23+00E L24+00E L25+00E



Scale of Profile 1 inch to 40%
 Station NAA Cutler, Maine
 17.80 KHz, 1000 Kw
 ↓ Swamp



NORLAC MINES LIMITED
 WAMPUM LAKE AREA ~ KENORA, ONTARIO.
ELECTROMAGNETIC SURVEY
(E.M.-16)

