



32L04SW9368 2.3251 WEST OF SUNDAY LAKE

010

ELECTROMAGNETIC SURVEY

on the

GOLD SHIELD SYNDICATE PROPERTY

Area west of Sunday Lake, Ontario

RECEIVED

MAR 1 1 1980

MINING LANDS SECTION

Timmins, Ontario,

March 1, 1980.

R. J. Bradshaw P. Eng.,

Geologist.

INTRODUCTION

An electromagnetic survey has been carried out on a group of 26 claims part of the Gold Shield Syndicate holdings (R. J. Bradshaw) in the Area west of Sunday Lake, Ontario. During the period February 2 to 10, 1980, a grid was established and the survey work was completed.

Four miles to the east, Dome and Campbell Red Lake are currently undertaking underground development work on the large Amoco gold deposit.

PROPERTY, LOCATION AND ACCESS

Seven contiguous lake claims P508544 to 508547 inclusive, and P508586 to 508588 inclusive were recorded February 1, 1978. Adjoining claims P539537 to 539575 inclusive, a total of 19, were recorded July 6, 1979. All of the claims are recorded in the name of R. J. Bradshaw.

Situated north of Hopper Lake, the property is 122 miles northeast of Timmins, Ontario.

The claim group is presently accessible by float or ski-equipped aircraft.

PREVIOUS WORK

The seven lake claims were covered by a magnetic survey by the Gold Shield Syndicate in March, 1978.

Noranda completed magnetic and vertical loop electromagnetic surveys on the land claims on 1975.

Four miles to the east Amoco has outlined a gold deposit of 10 million tons averaging 0.20 oz. per ton.

GEOLOGY

The regional geology of the area is based on published government aeromagnetic maps for the area (maps 2369G and 2370G) and recently published preliminary geological map P2242 by the Ontario Ministry of Natural Resources.

For the most part the area surveyed is underlain by schistose, amphibolite, mafic metavolcanic rocks which form the faulted nose of a major regional anticlinal structure trending east.

Lean iron formation, hosting the Amoco gold deposits, is magnetic and conductive, and forms a marker horizon for the major anticlinal structure.

The most prominent faults trend north-northeast.

ELECTROMAGNETIC SURVEY RESULTS AND INTERPRETATION

The Ronka EM 16 electromagnetic survey data is plotted and profiled on the accompanying plan at a scale of one inch to four hundred feet. The instrument and survey method are described in the Appendix to this report.

A number of fairly well defined conductive zones occur on the land portion of the claims; on the lake, however, indications of conductivity are weak and poorly defined probably because of the presence of lake bottom clays. The location of conductive zones

coupled with the Noranda magnetic survey indicate the presence of two northerly trending faults as shown on the accompanying plan.

Conductor A in the north of the area surveyed is well defined and in part coincides with a magnetic high, suggesting the presence of magnetic sulphides.

Conductor B, although well defined, lacks good correlation with a magnetic anomaly.

In the north half of the property, conductor C, trending east-northeast, varies in definition and strength. Between Lines 24 and 32 West, the well defined conductor coincides with a lenticular magnetic high suggesting the presence of a magnetic sulphide--pyrrhotite and perhaps pyrite.

Along Line 24 South, conductor D exhibits generally weak discontinuous conductivity without significant magnetic correlation.

Conductor E is generally weak and discontinuous. At two locations, however, crossing Lines 16 West and 28 West the conductor coincides with isolated magnetic highs, suggesting the presence of pyrrhotite.

Other indications of conductivity on the property are weak, discontinuous and poorly defined, without magnetic correlation. For the most part they are interpreted to represent features at the overburden sub-bedrock interface.

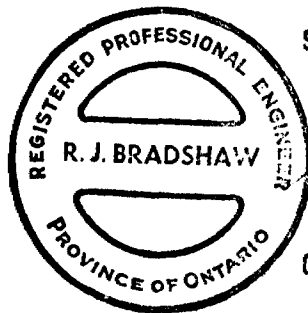
CONCLUSIONS AND RECOMMENDATIONS

A number of conductors interpreted to represent sulphide

mineralization have been detected on the property. These include A and portions of C and E. To determine whether or not gold is associated with this mineralization trenching and diamond drilling will be required.

Prior to implementing such a programme, however, it is adviseable to compile all of the magnetic and electromagnetic data on the 72 claims, at a scale of one inch to four hundred feet, to assist a reinterpretation of the geological structure and establish priorities for drilling and trenching.

Respectfully submitted,
SHIELD GEOPHYSICS LIMITED,



R. J. Bradshaw
R. J. Bradshaw, P. Eng.,
Geologist.

Timmins, Ontario,
March 1, 1980.

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS -- If more than one survey, specify data for each type of survey

Number of Stations 350 Number of Readings 350
Station interval 100' Line spacing 400'
Profile scale 1" = 40% EM
Contour interval

MAGNETIC

Instrument
Accuracy - Scale constant
Diurnal correction method
Base Station check-in interval (hours)
Base Station location and value

ELECTROMAGNETIC

Instrument Ronka EM 16
Coil configuration Vertical
Coil separation infinite
Accuracy + or - 1%
Method: [X] Fixed transmitter [] Shoot back [] In line [] Parallel line
Frequency 17.8 Khz Cutler, Maine
Parameters measured vertical field & quadrature

GRAVITY

Instrument
Scale constant
Corrections made
Base station value and location
Elevation accuracy

INDUCED POLARIZATION RESISTIVITY

Instrument
Method [] Time Domain [] Frequency Domain
Parameters - On time Frequency
- Off time Range
- Delay time
- Integration time
Power
Electrode array
Electrode spacing
Type of electrode



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) Electromagnetic
Township or Area Area west of Sunday Lake
Claim Holder(s) R. J. Bradshaw

Survey Company Shield Geophysics Limited
Author of Report R. J. Bradshaw
Address of Author P. O. Box 630, Timmins, Ontario
Covering Dates of Survey February 2-10, 1980
(linecutting to office)
Total Miles of Line Cut 19.5

MINING CLAIMS TRAVERSED	
List numerically	
P539557	
(prefix)	(number)
539558	
539559	
539560	
539561	
539562	
539563	
539564	
539565	
539566	
539567	
539568	
539569	
539570	
539571	
539572	
539573	
539574	
539575	<i>4 not covered</i>
TOTAL CLAIMS <u>19</u>	

If space insufficient, attach list

<u>SPECIAL PROVISIONS</u>	<u>CREDITS REQUESTED</u>	<u>DAYS</u> per claim
ENTER 40 days (includes line cutting) for first survey.	Geophysical	
	-Electromagnetic	<u>40</u>
	-Magnetometer	_____
	-Radiometric	_____
	-Other	_____
ENTER 20 days for each additional survey using same grid.	Geological	_____
	Geochemical	_____

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)
Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: March 1, 1980 SIGNATURE: *R. J. Bradshaw*
Author of Report or Agent

Res. Geol. _____ Qualifications 63, 13234
on this file

<u>Previous Surveys</u>			
File No.	Type	Date	Claim Holder

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS - If more than one survey, specify data for each type of survey

Number of Stations 1030 Number of Readings 1050
Station interval 100' Line spacing 400'
Profile scale 1" = 40% EM
Contour interval N.A.

MAGNETIC

Instrument
Accuracy - Scale constant
Diurnal correction method
Base Station check-in interval (hours)
Base Station location and value

ELECTROMAGNETIC

Instrument Ronke EM 16
Coil configuration Vertical
Coil separation infinite
Accuracy + or - 1%
Method: [X] Fixed transmitter [] Shoot back [] In line [] Parallel line
Frequency 17.5 Khz Cutler, Maine (specify V.L.F. station)
Parameters measured vertical field and quadrature

GRAVITY

Instrument
Scale constant
Corrections made
Base station value and location
Elevation accuracy

INDUCED POLARIZATION RESISTIVITY

Instrument
Method [] Time Domain [] Frequency Domain
Parameters - On time Frequency
- Off time Range
- Delay time
- Integration time
Power
Electrode array
Electrode spacing
Type of electrode

Kattawagami River Area - M.3001

AREA OF 2. 32 ~~51~~

WEST OF SUNDAY LAKE

DISTRICT OF COCHRANE

PORCUPINE 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 MUSKEG —
- MINES ✕
- CANCELLED c.

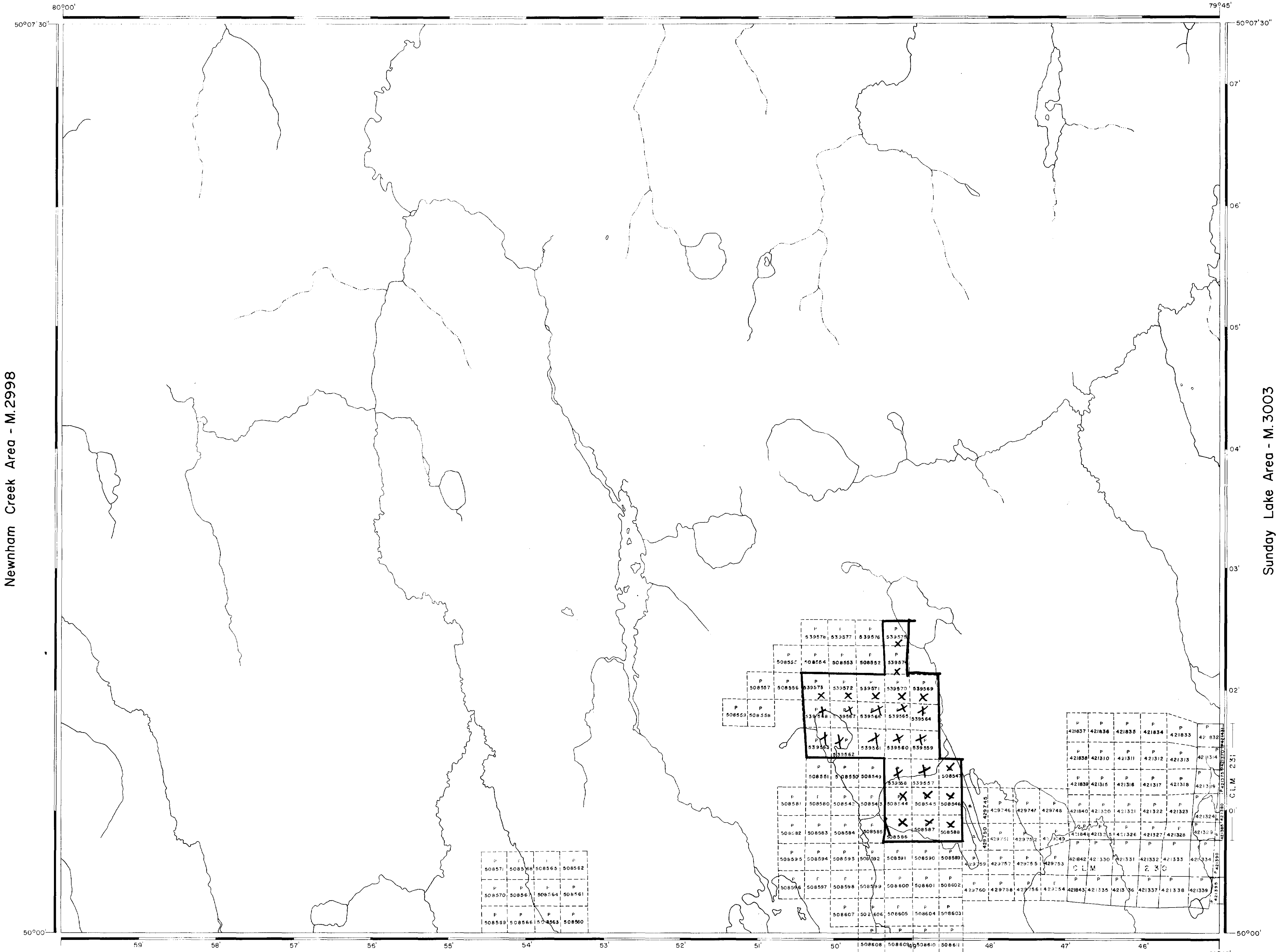
NOTES

400' Surface Rights Reservation around all lakes and rivers.

DATE OF ISSUE

MAR 13 1991

SURVEYS AND MAPPING BRANCH



Newnham Creek Area - M.2998

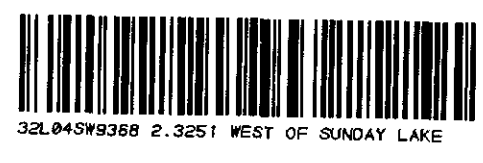
Sunday Lake Area - M.3003

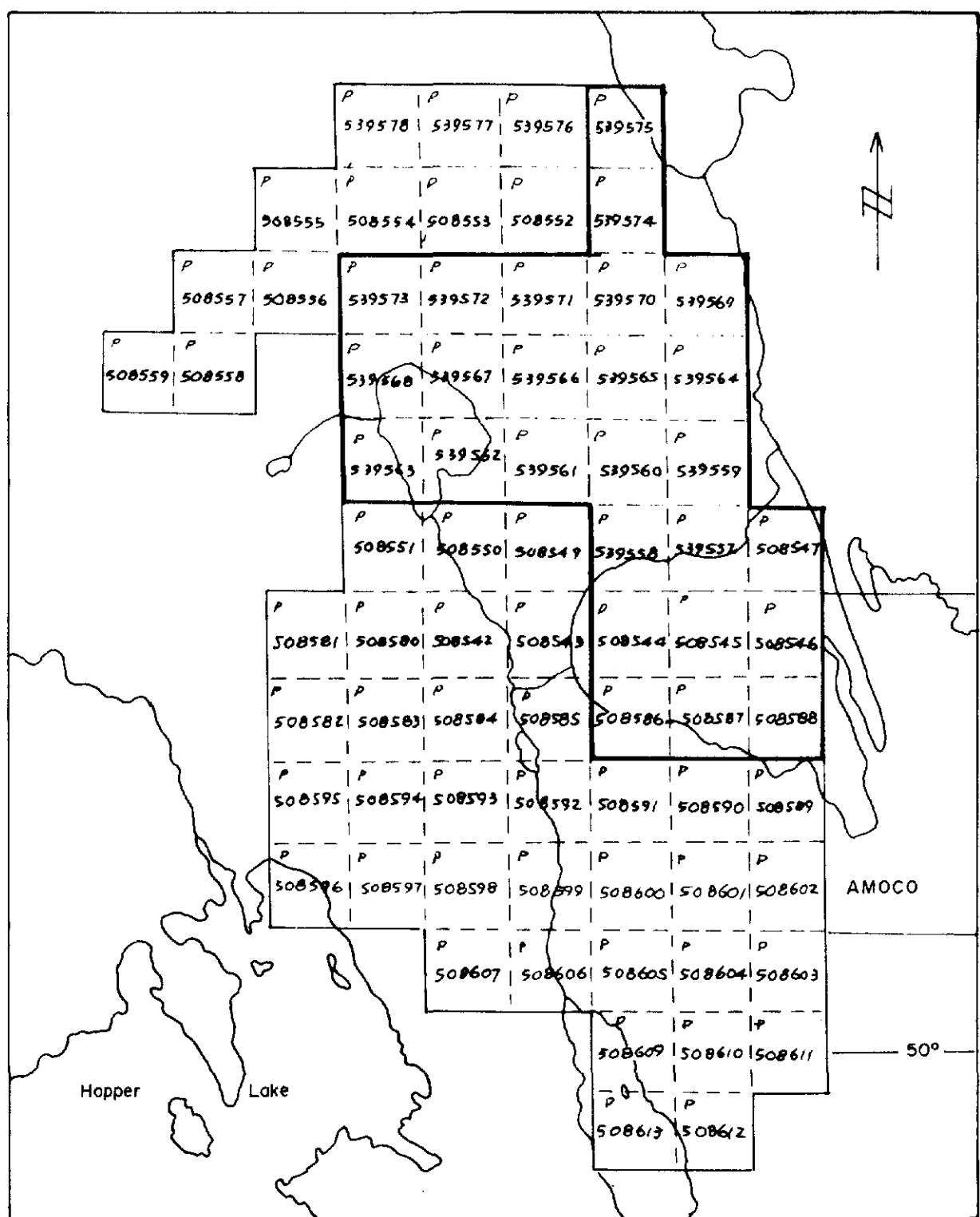
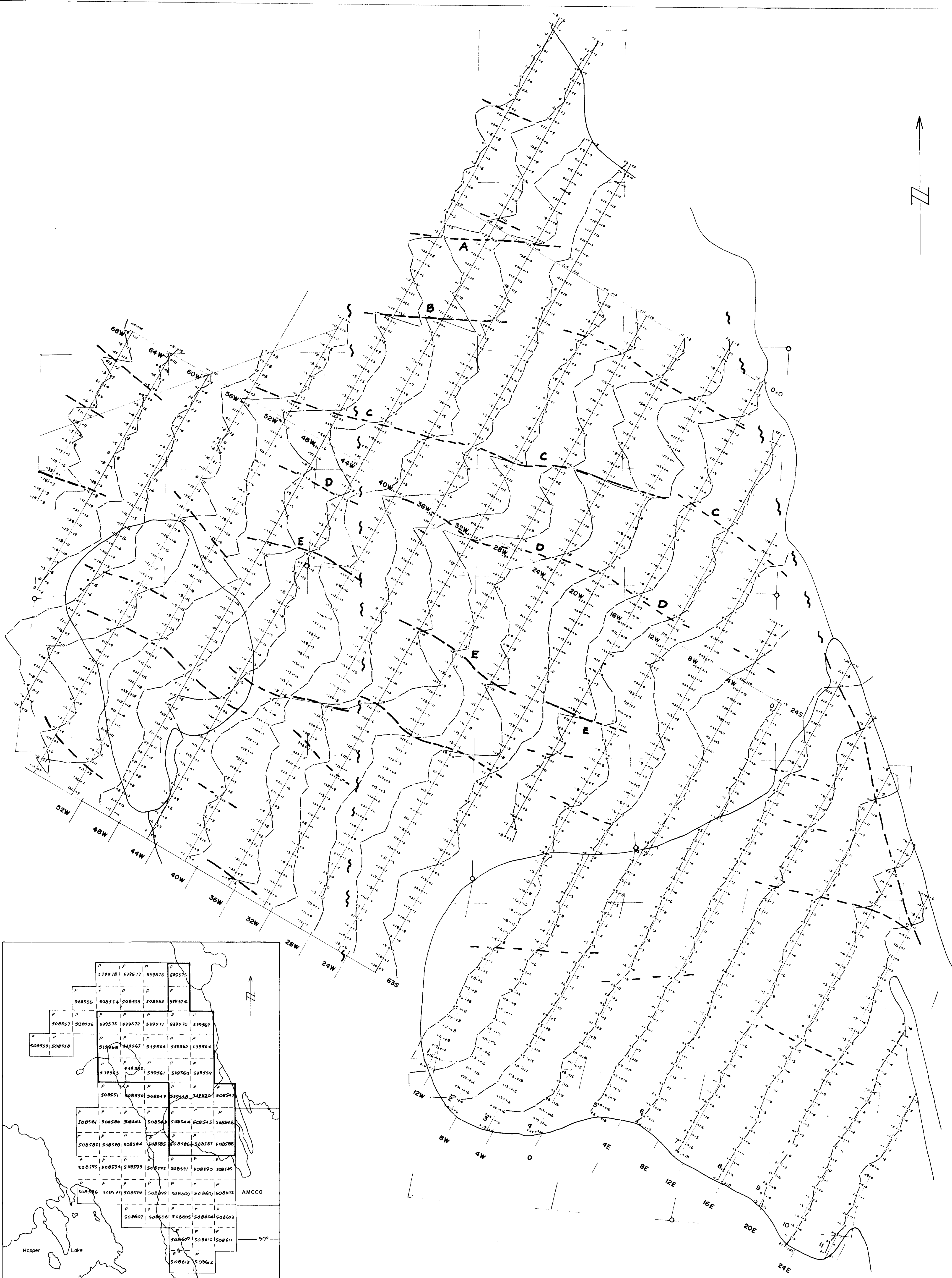
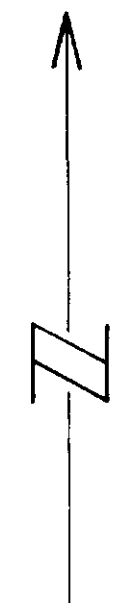
Hopper Lake Area M-2601

NATIONAL TOPOGRAPHIC SERIES 32L

PLAN NO. M.3004

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH





KEY MAP one inch to one half mile

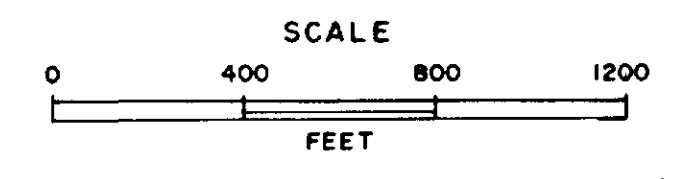
- LEGEND**
- Measurement station along picket line
 - In-phase reading (% plotted to left)
 - Quadrature reading (% plotted to right)
 - Profile scale: 1" = 40'
 - In-phase profile
 - Conductor - well defined, weaker

INSTRUMENT: Bonka EM 16, No. 36

ELECTROMAGNETIC SURVEY GOLD SHIELD SYNDICATE

AREA WEST OF SUNDAY LAKE, ONTARIO

by SHIELD GEOPHYSICS LIMITED



*Shield
Feb 6, 80*

FEBRUARY 1980

