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MINING LANDS SECTION

REPORT OF THE MAGNETIC AND ELECTROMAGNETIC SURVEYS BOYER AREA BLOCK 800-6 KAWASHEGAMUK LAKE TWP. DISTRICT OF KENORA, ONT.

Laurie Reed,
Chief Geophysicist

Toronto, Ontario
May 24th, 1978

INTRODUCTION

A program of magnetic and electromagnetic surveying was carried out in February, 1978 over claims in Kawashegamuk Lake Twp. (Claim Map M-2573) in the Mining Division of Kenora, District of Kenora.

The claims surveyed here lie across Church Lake. The survey represents the continuation of surveying done on land surrounding the lake during 1977. The claims may be reached by bush road from Borrups Corners on Highway 17 some 4 miles to the north.

A contiguous grid of lines was cut and laid out with pickets every 100 feet. Lines have a 400 foot separation.

The magnetometer used on this grid was a McPhar M-700 Fluxgate instrument which measures the vertical component of the earth's magnetic field to an accuracy of 10 gammas.

The electromagnetic survey was carried out using an Apex Max.-Min. II, horizontal-loop EM instrument using a frequency of 1777 Hz with a coil separation of 400 feet. In-phase and quadrature components of the secondary field were read to an accuracy of 1% of the primary field.

All instrument readings were taken on a 100 foot separation with closures to 50 feet in areas of anomalous activity.

GENERAL GEOLOGY

Volcanic rocks surround Church Lake. To the south, mafic rocks are andesitic in composition. North of the lake, andesitic basalts and basalts are observed. Minor dacite tuffs are also observed north of the lake. Felsic rocks are observed to the northeast.

MAGNETOMETER SURVEY

The magnetic response over much of the lake is subdued, suggesting a fairly uniform rock type. Some of this smoothing probably results from the greater depth to bedrock under the lake. The smooth magnetic pattern to the east and south of the lake suggests the mafic rocks of these areas continue under the lake.

To the northeast, a somewhat stronger response suggests the presence of the strong magnetic formation seen north of the lake. While the source of this formation is not identified, it would appear to be a phase of the volcanics carrying considerably more magnetite than the surrounding rocks.

ELECTROMAGNETIC SURVEY

Four or five electromagnetic responses are seen running through the lake. For the most part these are identified by large quadrature responses with only moderate in-phase responses. Their location in the lake suggests fairly conductive lake sediments. Some of the in-phase responses in the lake particularly to the west on lines 36E and 40E become fairly large, however the large quadrature response indicates poor conductors of likely lake sediment origin.

One conductor however, appears to be of bedrock origin, although its conductivity response is only somewhat better than some of those in the lake. This is the response on line 52E at 59+50S on the south shore of the lake. This conductor appears to be an easterly extension of a conductor seen on-shore by the earlier survey. No magnetic response is noted with this conductor.

CONCLUSIONS

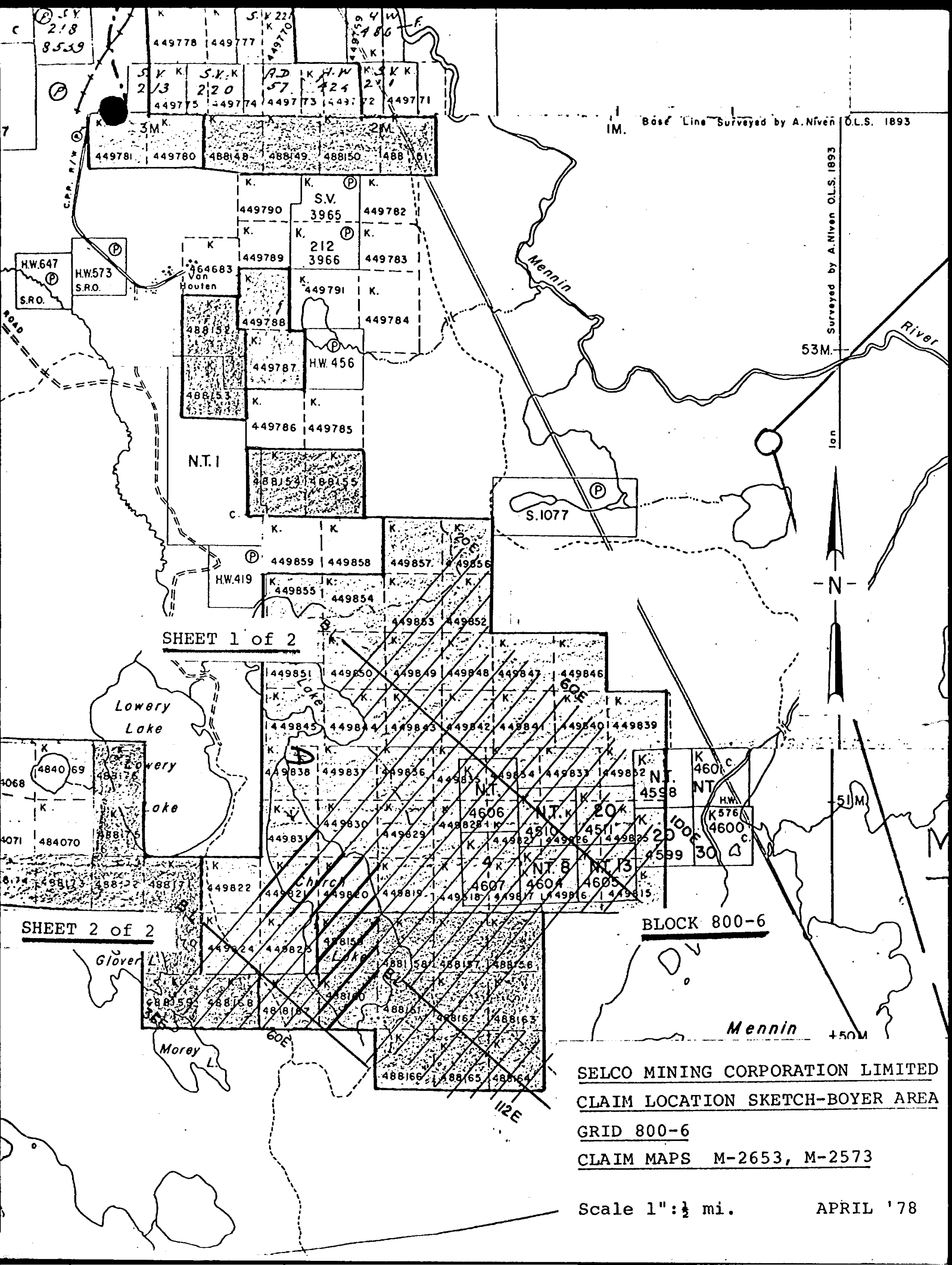
One conductor of bedrock origin has been identified in this survey. Although mafic rocks are indicated, further geologic mapping in the environment of the conductor might usefully be carried out. Testing the conductor by drilling should be considered should the geologic setting warrant.

REGISTERED PROFESSIONAL ENGINEER
L. E. REED
PROVINCE OF ONTARIO

Laurie Reed

Laurie Reed,
Chief Geophysicist

/am



SELCO MINING CORPORATION LIMITED

CLAIM LOCATION SKETCH-BOYER AREA

GRID 800-6

CLAIM MAPS M-2653, M-2573

Scale 1":½ mi. APRIL '78

File 800-6

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPEND
FACTS SHOWN HERE NEED NOT
TECHNICAL REPORT MUST CONTAIN INT

52F10NW0034 2.2705 KAWASHEGAMUK LAKE

900

Type of Survey: Geophysical

Township or Area: M-2573

Claim holder(s): Selco Mining Corporation Limited
55 University AVe., Toronto, Ont. M5J 2H7

Author of Report: L.E. Reed

Address: 55 Univeristy Ave., Toronto, Ont. M5J 2H7

Covering Dates of Survey: September '77
(linecutting to office)

Total Miles of Line cut: 3.3 mls.

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
–Electromagnetic	20
–Magnetometer	40
–Radiometric	
–Other	
Geological	
Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer ______ Electromagnetic ______ Radiometric ______
(enter days per claim)

DATE: Aug 24 1978 SIGNATURE: Lorne Reed
Author of Report or Agent

PROJECTS SECTION L.D

Res. Geol. ______ Qualifications 2.62

Previous Surveys ______

Checked by ______ date ______

GEOLOGICAL BRANCH ______

Approved by ______ date ______

GEOLOGICAL BRANCH ______

Approved by ______ date ______

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)	
K	488158	1/4 not covered
K	488159	✓
K	488160	1/4
K	449820	✓
K	449821	✓
K	449831	1/2

1/2 covered mining claim
10 days (EM)
20 days (Mag)

If space insufficient, attach list

TOTAL CLAIMS 6

Show instrument technical data in each space for type of survey submitted or indicate "not applicable"

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations: EM-220 MAG. 205 Number of Readings: EM-220 MAG. 205

Station interval: 100' & 50'

Line spacing: 400'

Profile scale or Contour intervals: 1":20% Every 100 gammas to 1000
(specify for each type of survey) Every 500 gammas to 5000
Every 1000 gammas thereafter

MAGNETIC

Instrument: McPhar M-700

Accuracy - Scale constant: ± 5 gammas

Diurnal correction method: Base Stations

Base station location: Taken at the intersection of Base Line and Cross Lines.

ELECTROMAGNETIC

Instrument: Apex Max. Min. II

Coil configuration: Horizontal

Coil separation: 400'

Accuracy: ± 0.5%

Method: ☐ Fixed transmitter ☐ Shoot back ☒ In line ☐ Parallel line

Frequency: 1777 Hz.
(specify V.L.F. station)

Parameters measured: In-phase and quadrature components of secondary field as a percentage of primary field.

GRAVITY

Instrument:

Scale constant:

Corrections made:

Base station value and location:

Elevation accuracy:

INDUCED POLARIZATION – RESISTIVITY

Instrument:

Time domain: Frequency domain:

Frequency: Range:

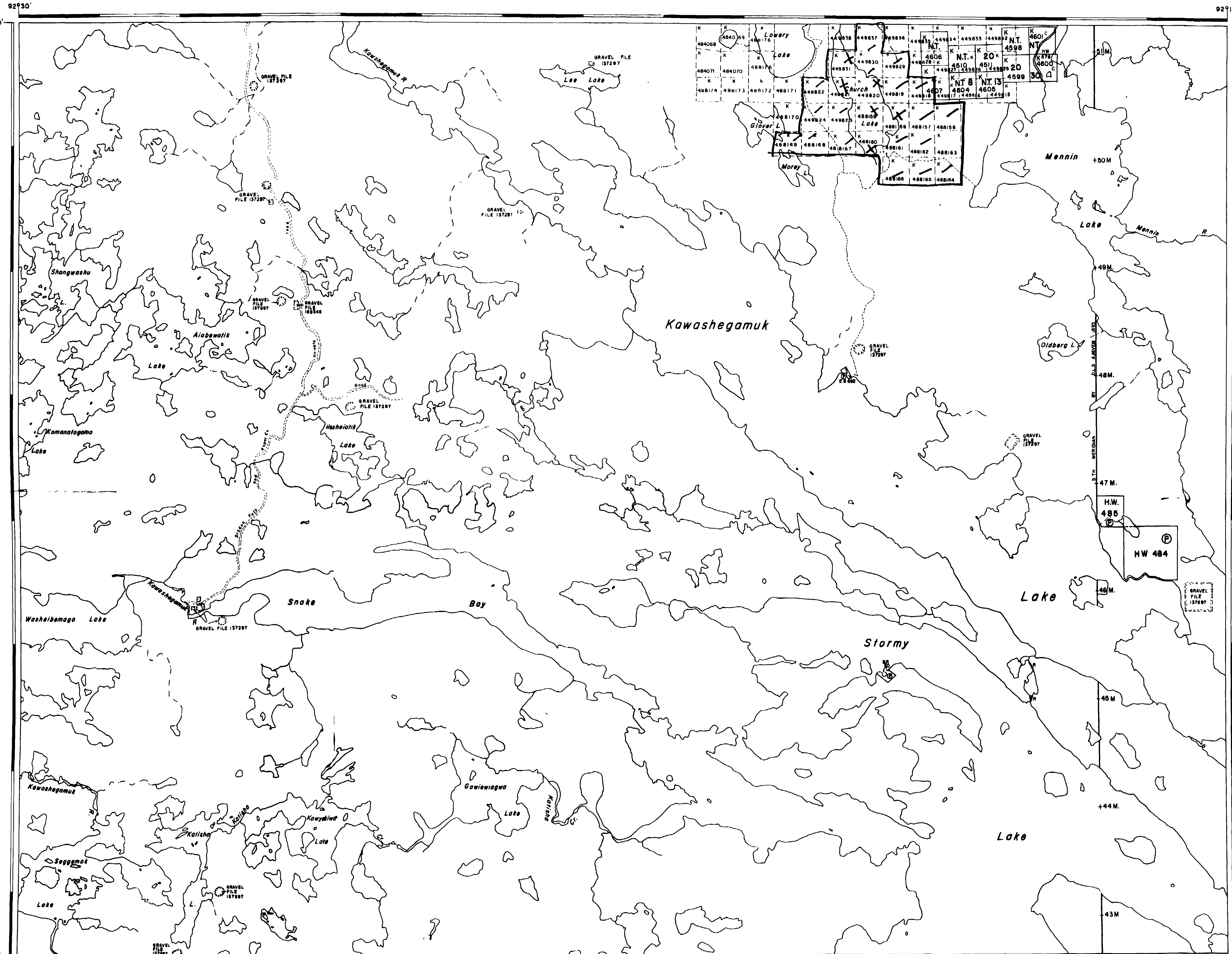
Power:

Electrode array:

Electrode spacing:

Type of electrode:

TABOR LAKE - M.2653



BOYER LAKE - M.2582

REVELL LAKE - M.2569

WAPAGEISI LAKE - M.2056

AREA OF 2.2705

KAWASHEGAMUK 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 MUSKEG	
MINES	
CANCELLED	C

NOTES

400' surface rights reservation along the shores of all lakes and rivers.

Roads indicated Dryden Paper Co Private Road may be used by prospectors only after permission is obtained from Dryden Paper Co. Dryden, Ont.

DATE OF ISSUE
JUN - 6 1978
SURVEYS AND MAPPING BRANCH

NATIONAL TOPOGRAPHIC SERIES 52 F 8

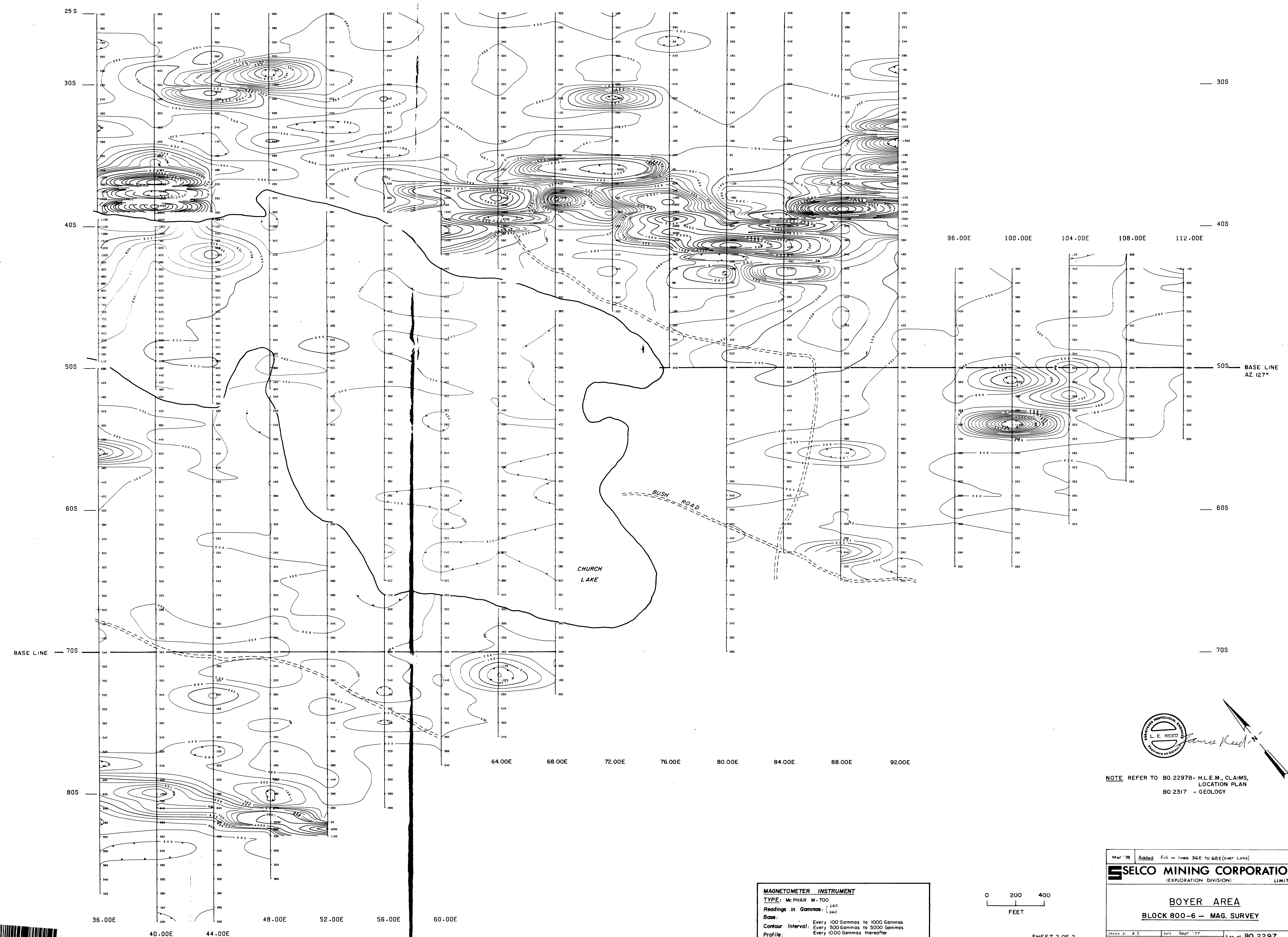
PLAN NO.- M-2573

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

52F10NW0034 2.2705 KAWASHEGAMUK LAKE

200

494922



NOTE REFER TO BO.2297B - H.L.E.M., CLAIMS, LOCATION PLAN
BO.2317 - GEOLOGY

MAGNETOMETER INSTRUMENT

TYPE: McPHAR M-700

Readings in Gammas: [260 / 340

Base:

Contour Interval: Every 100 Gammas to 1000 Gammas; Every 500 Gammas to 5000 Gammas; Every 1000 Gammas thereafter

Profile:

SHEET 2 OF 2

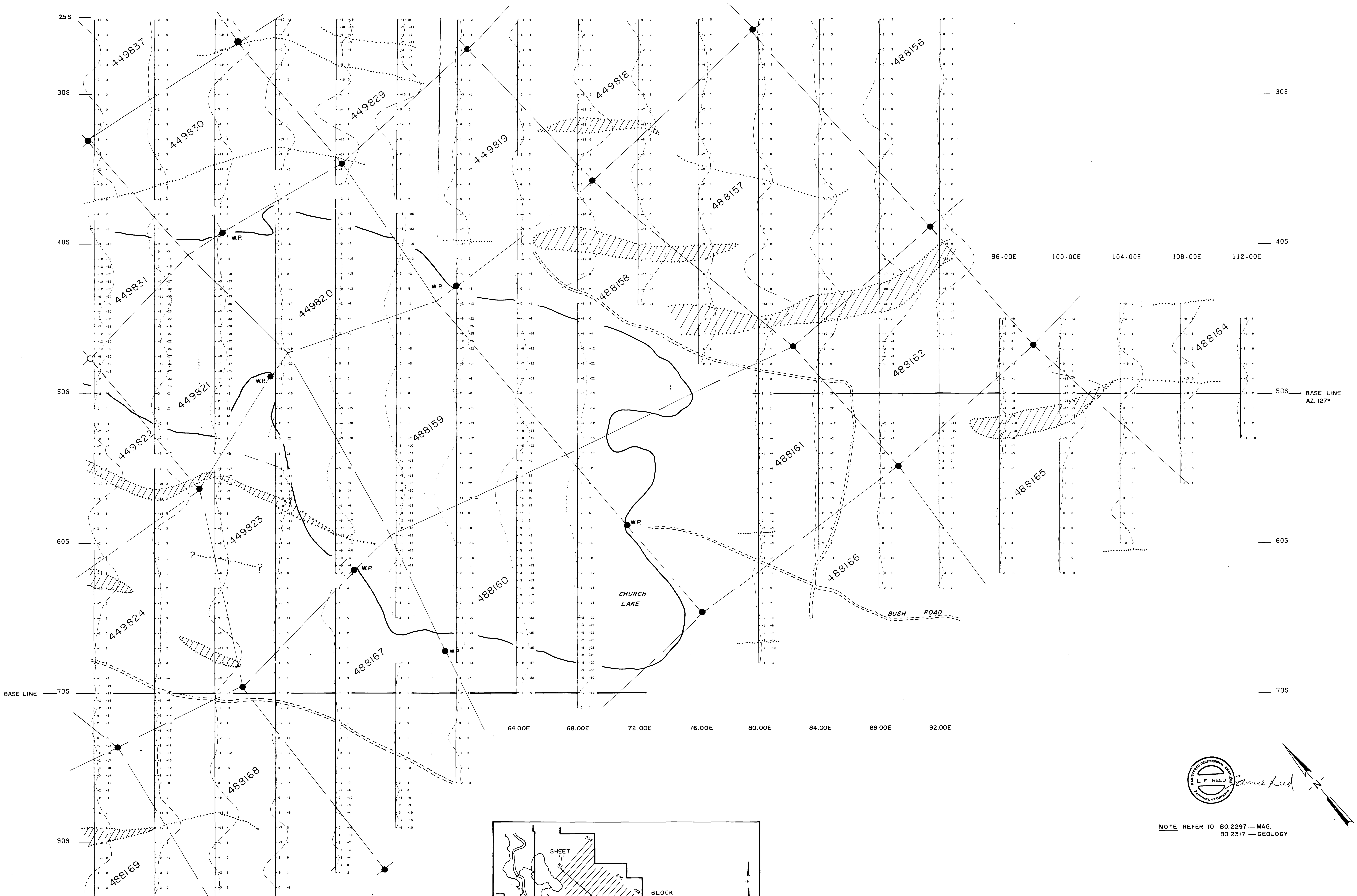
Mar '78	Added	Fill in lines 36E to 68E (over Lake)

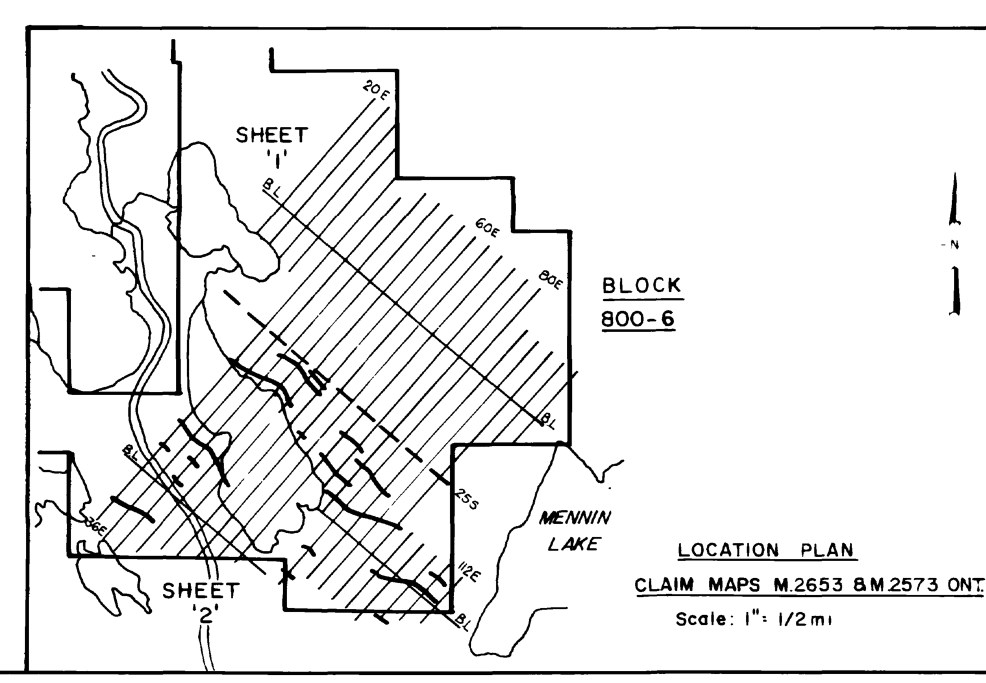
SELCO MINING CORPORATION LIMITED
(EXPLORATION DIVISION)

BOYER AREA

BLOCK 800-6 — MAG. SURVEY

DRAWN BY A.C.	DATE Sept '77	PLAN No. BO.2297
TRACED BY Data Plot	DATE Nov '77	





ELECTROMAGNETIC INSTRUMENT

TYPE: APEX MAX-MIN II

HORIZONTAL LOOP *(Percent of Primary Field)*

Frequency: 1777 Hz

Cable Length: 400'

In Phase: ●—●→ [-1-8 / -2-7] ←●---● Out of Phase Quadrature

Conductor Width:

Profile Scale: 1" : 20%

SHEET 2 OF 2

Mar '78	Added Fill in lines 36E to 68E (over Lake) Amended Claim numbers

SELCO MINING CORPORATION LIMITED
(EXPLORATION DIVISION)

BOYER AREA

BLOCK 800—6 — H.L.E.M. SURVEY

DRAWN BY	A C	DATE	Sept '77	PLAN No	80.2297B
TRACED BY	Data Plot	DATE	Nov '77		