MAGNETIC - ELECTROMAGNETIC SURVEY

on the

J. V. BONHOMME PROPERTY

Ogden Township, Ontario

Timmins, Ontario,

February 10, 1982.

R. J. Bradshaw, P. Eng.,

Geologist.

INTRODUCTION

Two claims in the easternmost sector of the J. V. Bonhomme property in Ogden Township have been covered by magnetic and electromagnetic surveys.

The picket lines and survey work were completed in early July, 1981.

The old De Santis gold mine is located several hundred feet west of the claims.

PROPERTY, LOCATION AND ACCESS

The two unpatented claims, numbered P525987 and P525988, are situated along the east boundary of a 48 claim block, in north-central Ogden Township, held by J. V. Bonhomme.

Within the city limits of Timmins, Ontario, the property is a few miles south of the downtown area.

An all-weather gravel road providing access to the De Santis mine crosses the claims. About a mile east this road connects to Pine Street South, a main thoroughfare through the city of Timmins.

PREVIOUS WORK

In July, 1980, a hole designated 80-1 was drilled north from the base line at 71+00 east. No gold values were detected in the hole drilled to 301 feet in carbonatized intermediate volcanic rocks.

GEOLOGY

The claims are expected to be underlain by dominantly intermediate to mafic volcanics striking generally east and dipping south at about 45 degrees.

MAGNETIC SURVEY RESULTS AND INTERPRETATION

The magnetic survey data is plotted and contoured on the accompanying plan at a scale of one inch to two hundred feet. The instrument and survey method are described in the Appendix to this report.

The minimal data available on a two claim block does not lend itself to a detailed interpretation.

A south-southeasterly trend of the underlying rocks is indicated by the magnetic contours which contrasts with an easterly trend several hundred feet further west. This deviation is supportive of a diabase dyke crossing the claims in a north-northwest direction.

ELECTROMAGNETIC SURVEY RESULTS AND INTERPRETATION

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

An east-southeasterly trending conductor about the centre of claim P525988 probably represents a graphitic horizon as indicated by drilling to the west.

A weak crossover at station 11 south, line 80 east, corresponds to the diabase dyke contact.

CONCLUSIONS AND RECOMMENDATIONS

The geophysical data indicates that the stratigraphy, as outlined by drilling to the west, is continuous across the claims except where interrupted by a north-northwest trending diabase dyke.

It is suggested that no further work be undertaken on the claims at this time.

Respectfully submitted,

SHIELD GEOPHYSICS LIMITED,

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

Timmins, Ontario,
February 10, 1982.

A P P E N D I X

INSTRUMENT METHOD AND SURVEY DATA

Electromagnetic Survey

Any alternating magnetic field will induce an electrical eddy current in the medium through which the magnetic field passes. If a source of an alternating magnetic field is located near a conductive body anomalously strong eddy currents will be induced in the deposit due to its high electrical conductivity. Electrical currents induced in the conductive body will produce a secondary magnetic field proportional to the intensity of current flow.

A receiver coil tuned to the frequency of the transmitting device will pick up both the directly transmitted signal and theeddy current signal.

The electromagnetic unit used in this survey is a McPhar unit and consists of a vertically mounted, motor-generator powered transmitting coil operating at frequencies of 5000 and 1000 cps. and a receiving coil, tuned to the transmitting frequencies, an inclinometer, an amplifier and a headset.

Throughout the survey, the transmitter and receiver were separated by distances of 400, 800 and 1200 feet. The plane of the transmitter coil was oriented so that the transmitter was vertical and pointed towards the receiver. Orientation was obtained using a plate on which predetermined receiver positions were plotted. Stations were read at one hundred foot intervals. At all times, the receiver "faced" the transmitter. The results

obtained are dip angles, measured in degrees. The dip angles are obtained by first orienting the receiver coil in the plane of the magnetic field by rotating the coil about a vertical axis until a null or minimum signal is obtained, and then rotating the coil about a horizontal axis until a null or minimum signal is obtained. The angle which the magnetic field makes with the horizontal is recorded as a "dip" or "tilt" angle. In the absence of a conductor the dip angle will be zero since no secondary field is present. In the presence of a conductor, the axis of the receiver coil points towards the conductor and the plane of the coil away from the conductor. In the presence of a conductor, the secondary magnetic field is usually displaced from the primary in-phase as well as direction so that the total field is elliptically polarized. The receiver cannot then be nulled completely but a minimum signal can be obtained, the width of the minimum being an indication of the phase displacement.

The tilt angles are plotted as profiles, the zero or "cross-over" point indicating the focus of the conductor axis.

Once a conductor axis has been established, the transmitter is set up over the conductor and lines are read on both sides of the transmitter and the conductor axis is traced out by "leap frogging" from "cross-over" to "cross over".

SPECIFICATIONS

Operating Frequencies: 1000 and 5000 cycles per second.

Range: 2000 foot separation between transmitter and receiver for a ± 10 degree null width.

Depth of Exploration: Roughly half the distance between transmitter and receiver.

Transmitter Power Supply: 500 watt alternator driven by a 1½ H.P. gasoline engine.

Weights:

Packboard-mounted engine generator	48 lbs.
Transmitter coil on packboard	49 lbs.
Coil mounting pole and spreader bar	22 lbs.
Receiver	7 lbs.

Magnetic Survey

A McPhar fluxgate magnetometer was used for the magnetic survey. The instrument measures the vertical component of the earth's magnetic field in gammas. A base station for determining the magnetic diurnal variation was established on Line 76E at Station 7+00S. Magnetic readings were taken at 100 foot intervals along the cross lines.

C E R T I F I C A T E

I, Ronald J. Bradshaw, residing at R. R. 2, Airport Road, Timmins, Ontario, a consulting geologist with office at R. R. 2, Airport Road, Timmins, Ontario, do hereby certify that:

I attended Queen's University, Kingston, Ontario, and graduated with an Honours B.A. degree in Geological Sciences in 1958.

I am a Fellow of the Geological Association of Canada, a Member of the Canadian Institute of Mining and Metallurgy and of the Association of Professional Engineers of Ontario.

I have no interest either directly or indirectly in the property of J. V. Bonhomme.

Timmins, Ontario,
February 10, 1982.

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

1982 02 25 2.4559

Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

We have received reports and maps for a Geophysical (Electromagnetic and Magnetometer) Survey submitted under Special Provisions (credit for Performance and Coverage) on mining claims P 525987 et al in the Township of Ogden.

This material will be examined and assessed and a statement of assessment work credits will be issued.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1316

J. Skura/amc

cc: Shield Geophysics Limited
Timmins, Ontario

2.4559 P-525987

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

#37

Ogden Twp.

The Mining Act 2.4559

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s)	Township or Area
Magnetic & Electromagnetic	Ogden Township

Claim Holder(s)	Prospector's Licence No.
J. V. Bonhomme, 168 Algonquin Blvd. E., Timmins, Ontario	M19183

Survey Company	Survey Dates (linecutting to office)	Total Miles of line Cut
Shield Geophysics Limited	1 Day / 7 Mo. / 81 Yr. — 4 Day / 7 Mo. / 81 Yr.	2 miles

Name and Address of Author (of Geo-Technical report)
R. J. Bradshaw, P. O. Box 630, Timmins, Ontario

Special Provisions Credits Requested

Instructions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical - Electromagnetic	40
	Geophysical - Magnetometer	20
For each additional survey: using the same grid: Enter 20 days (for each)	Geophysical - Radiometric	
	Geophysical - Other	
	Geological	
	Geochemical	

Man Days

Instructions		Days per Claim
Complete reverse side and enter total(s) here	Geophysical - Electromagnetic	
	Geophysical - Magnetometer	
	Geophysical - Radiometric	
	Geophysical - Other	
	Geological	
	Geochemical	

Airborne Credits

Note: Special provisions credits do not apply to Airborne Surveys.		Days per Claim
	Electromagnetic	
	Magnetometer	
	Radiometric	

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	525987	60
	525988	60

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

RECORDED
FEB 16 1982
Receipt No. .....

RECEIVED
MAR - 4 1982
MINING LANDS SECTION

PORCUPINE MINING DIVISION
RECEIVED
FEB 15 19[illegible]
7 8 9 10 11 12 1 2 3 4 5 6

Total number of mining claims covered by this report of work: 2

Report Completed

Date of Report	Recorded Holder or Agent (Signature)
Feb. 10, 1982	[signature]

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
120	Feb 16/82	[signature]
	Date Approved as Recorded: Dec 8/82	Regional/Branch Director: for [signature]

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

SHIELD GEOPHYSICS LIMITED
MINING EXPLORATION CONSULTANTS & CONTRACTORS
AIRPORT ROAD, TIMMINS, ONTARIO
TELEPHONE (705) 264-9405
MAILING ADDRESS:
P.O. BOX 630
TIMMINS, ONTARIO
P4N 7G2

February 16, 1982.

Lands Administration Branch,
Mining Lands Section,
Ministry of Natural Resources,
Room 1617, Whitney Block,
Queen's Park,
Toronto, Ontario M7A 1W3.

Attention: Mr. Fred W. Matthews

Dear Sir:

Re: Claims P525987 and P525988
Ogden Township

Enclosed please find two copies of magnetic and electromagnetic surveys carried out on two claims of the J. V. Bonhomme property in Ogden Township.

The Report of Work form has been filed with the local Mining Recorder's office in Timmins.

Yours truly,
SHIELD GEOPHYSICS LIMITED,

R. J. Bradshaw.

pd
Encls.

qual. to file 82.1323

Ministry of Natural Resources

Geotechnical Report Approval

File 2.4559

Mining Lands Comments

☑ To: Geophysics Mr. Barlow.

Comments

☑ Approved ☐ Wish to see again with corrections | Date Oct 27/82 | Signature

☐ To: Geology - Expenditures

Comments

☐ Approved ☐ Wish to see again with corrections | Date | Signature

☐ To: Geochemistry

Comments

LD

☐ Approved ☐ Wish to see again with corrections | Date | Signature

Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

MOUNTJOY TWP. M-302

DELORO TWP. M-272

PRICE TWP. M-307

THE TOWNSHIP OF

OGDEN

DISTRICT OF COCHRANE

PORCUPINE MINING DIVISION

SCALE: 1-INCH = 20 CHAINS

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	C.S.
LEASES	(L)
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.
QUARRY PERMIT	(QP)

NOTES

400' Surface Rights Reservation along the shores of all lakes and rivers.

L.O. 6613 - Booming Grounds - covers the westerly half of the bed of the Mattagami River flowing through this township. File: 73543.

This township lies within the Municipality of CITY of TIMMINS.

Areas withdrawn from staking under Section 43 of the Mining Act

File	Date	Disposition
51RW 51/79	189427	2/11/79 S.R.O.

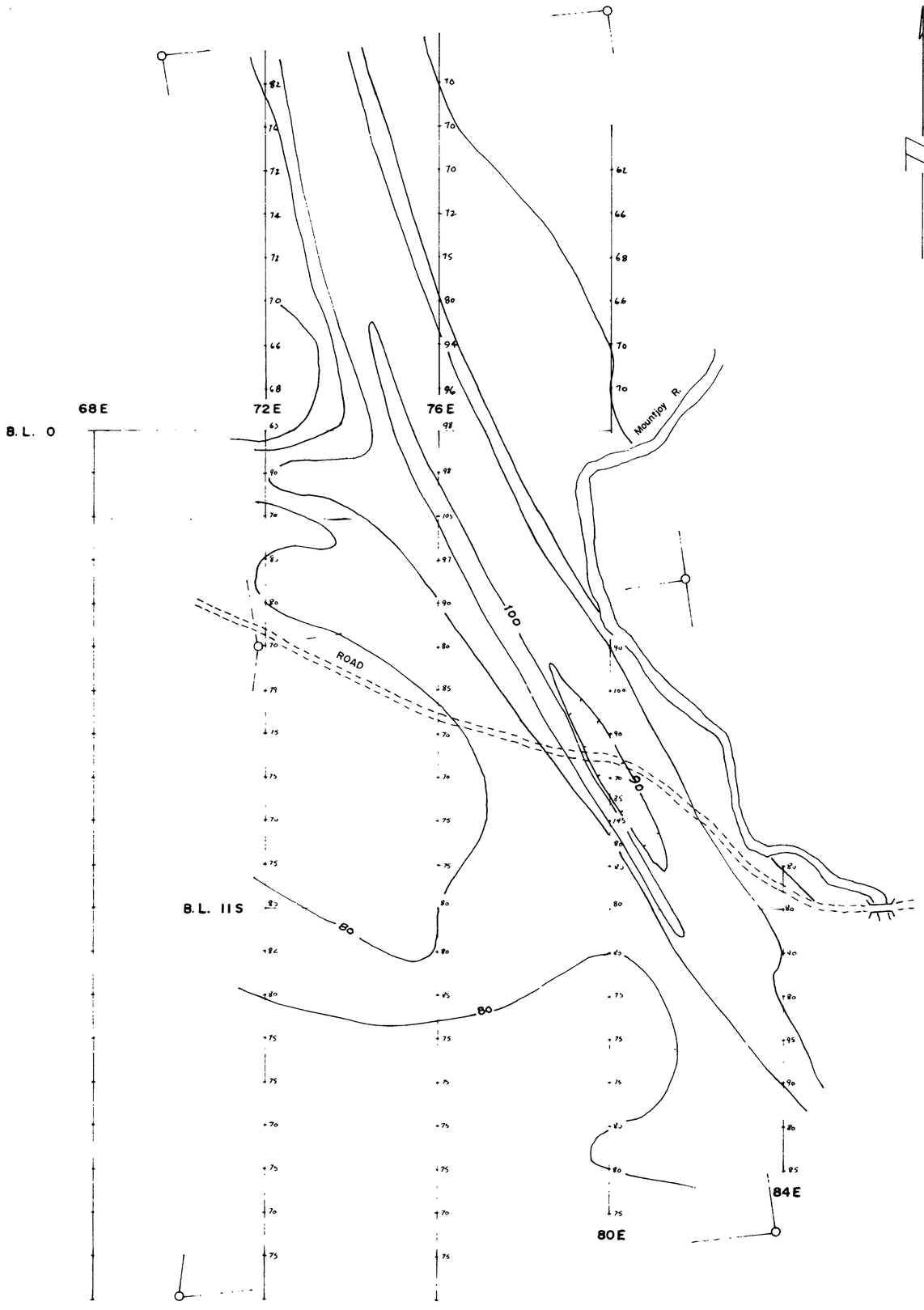
DATE OF ISSUE
SEP 1 1982

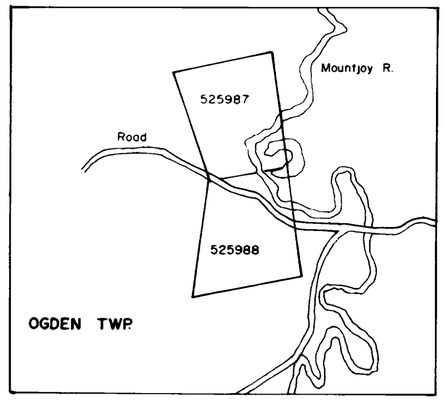
PLAN NO. M-305

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

42A08NW0212 2.4559 OGDEN

200





KEY MAP 1 inch to 1/2 mile

LEGEND

- Measurement station along picket line
- 85 — Relative value of the vertical component of the earth's magnetic field in gammas
- 80 — Magnetic contour
- 90 — Magnetic depression

INSTRUMENT: McPhar fluxgate magnetometer

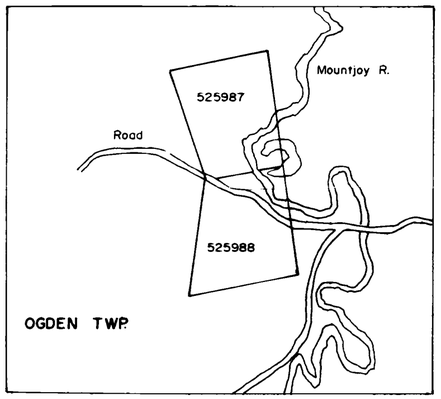
MAGNETOMETER SURVEY
ON THE
J. V. BONHOMME PROPERTY
OGDEN TOWNSHIP, ONTARIO

SCALE
0 FEET 200 600 800
0 METRES 100

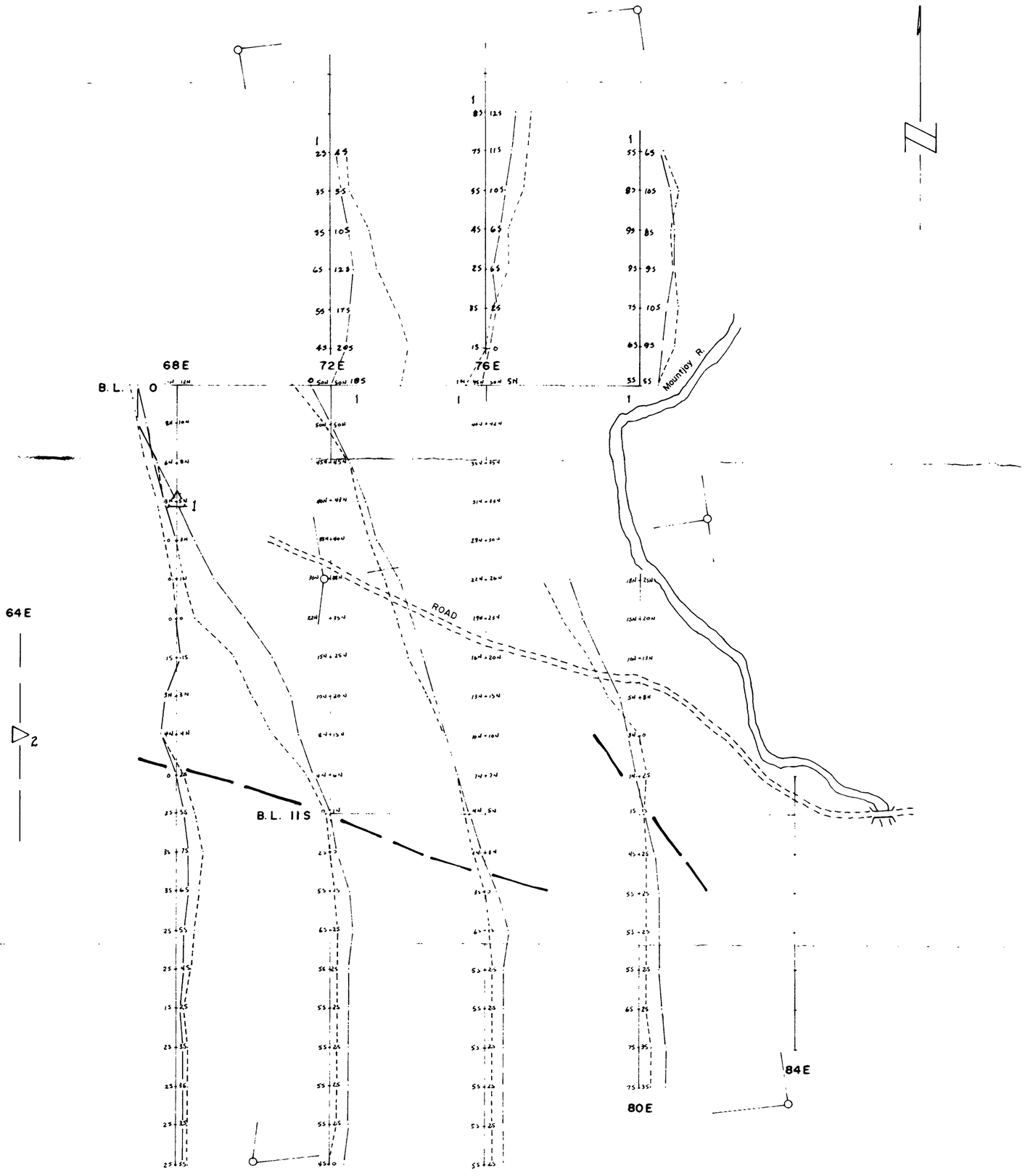
Feb. 11, 82

FEBRUARY 1982

2.4559



KEY MAP 1 inch to 1/2 mile



LEGEND

- Measurement station along picket line
- 23 — 1000 cps plotted to left of line
- 45 — 5000 cps plotted to right of line
- Transmitter location
- 1000 cps profile
- 5000 cps profile
- Profile scale 1" = 20°
- Conductor

INSTRUMENT McPhar 1000/5000 E.M.

ELECTROMAGNETIC SURVEY
ON THE
J. V. BONHOMME PROPERTY
OGDEN TOWNSHIP, ONTARIO

SCALE

0 FEET 200 600 800

0 METRES 100

for 11.82

FEBRUARY 1982

2.4559