



42A06SE0500 2.907 ADAMS

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PROJECTS
SECTION

ELECTROMAGNETIC SURVEY

on the property of

CANADIAN MAGNEMONT LTD.

Adams Township, Ontario

Timmins, Ontario,

June 16, 1972.

R. J. Bradshaw, P. Eng.,

Consulting Geologist.

INTRODUCTION

A Ronks EM 16 survey has been completed on eleven claims held by Canadian Magnemont Ltd. in Adams Township.

The picket lines were established and the survey carried out during the period June 5th to 11th, 1972.

PROPERTY, LOCATION AND ACCESS

The claims covered by the survey include P279231 to P279235 inclusive, P278770, P279379, P279962, P279963, P279965 and P279966, all contiguous and unpatented.

The claim block is situated along the north boundary of Adams Township about 10 miles south of Timmins, Ontario. Three adjacent claims P313774, P313775, and P313776 were recently surveyed with the EM 16 unit as described in a report by the writer dated April 7, 1972. *File 2.722*

A gravel road from the old Buffalo Ankerite mine crosses the north boundary of Adams Township at the three mile post, one mile west of the claim block.

PREVIOUS WORK

A magnetic survey, on behalf of the H. Dpatowski interest, was completed on the claims in the spring of 1971 by Shield Geophysics (See report by R. J. Bradshaw, May 13, 1971). *File 2.466*

Apart from surface prospecting, primarily for gold, no other specific work is indicated to have been carried out on the claims according to government files.

GEOLOGY

Issued in 1969, Map P571 by the Ontario Department of Mines, displays the geology of Adams Township. Rock exposure is exceedingly limited. The regional geology of the area is best displayed on a plan, at a scale of one inch to two miles, issued with Miscellaneous Paper 41 by the Ontario Department of Mines in 1970.

The southwest rim of a domical structure, centred in Shaw Township about 4 miles northeast, is present in the northeast sector of Adams Township. Nickel-bearing alpine type serpentized ultramafic intrusions form the rim of the dome. The Noranda-Inco nickel deposit in Langmuir Township, currently being prepared for production, is located at the contact of a serpentized ultramafic body.

Based on a few rock exposures and the magnetic survey, it is postulated that the area surveyed is underlain by serpentized and carbonatized ultramafic to mafic intrusions.

ELECTROMAGNETIC SURVEY RESULTS AND INTERPRETATION

A plan at a scale of one inch to four hundred feet shows the survey data and the conductor axes. An appendix to this report contains a description of the instrument and survey method.

Conductor A - This anomaly is composed of five parallel conductors forming a conductive zone in the north sector of the property. The conductive zone strikes a little south of east coinciding with the most prominent magnetic anomaly on the property, having a peak magnetic value of 11,520 gammas. A profile of the magnetic

susceptibilities over this anomaly indicates that the source dips south. The conductive zone ranges from 200 to 400 feet wide and is very well defined for over 1200 feet.

The source of conductivity is considered to be a sulphide iron formation.

Conductor B - Situated in the west sector of the area surveyed, this conductor strikes southeasterly for a length of 2000 feet. Coinciding in part with higher magnetic susceptibilities this conductor appears to be caused by bedrock mineralization perhaps associated with the magnetic sulphide, pyrrhotite.

Conductor C - Near the west boundary, this conductor strikes easterly for a length of about 500 feet. The conductor axis coincides with a magnetic high several hundred gammas above background suggesting that the conductor may be caused by sulphides associated with pyrrhotite which is magnetic.

Other Conductors - Several other conductors, present within the survey area, appear to be caused by conductive overburden.

CONCLUSIONS AND RECOMMENDATIONS

Of three conductive zones described above, the A zone merits the most attention. There is little doubt that sulphides associated with magnetite forms the source of this coincident magnetic-electromagnetic anomaly. Base metal sulphides may also be present.

As previously indicated conductors B and C may be caused by sulphides associated with the magnetic sulphide, pyrrhotite. However, magnetite in a carbonatized or serpentized

ultramafic intrusion could also be the source of conductivity.

Although conductor A merits investigation by drilling, the survey results of conductors B and C are not conclusive enough to justify exploratory drilling. Therefore, it is recommended that these three conductive zones be surveyed utilizing a vertical loop electromagnetic unit. This survey would provide the data necessary to make more conclusive recommendations concerning the required drill footage and drill hole locations to most effectively investigate the anomalous zones.

An approximate amount of \$900 should be allocated for the vertical loop electromagnetic survey work.

Respectfully submitted,
SHIELD GEOPHYSICS LIMITED,

Timmins, Ontario,

June 16, 1972.

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



C E R T I F I C A T E

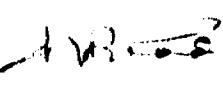
I, Ronald J. Bradshaw, residing at 480 Howard Street, Timmins, Ontario, a consulting geologist with office at 26 Pine Street South, Timmins, Ontario, do hereby certify that:

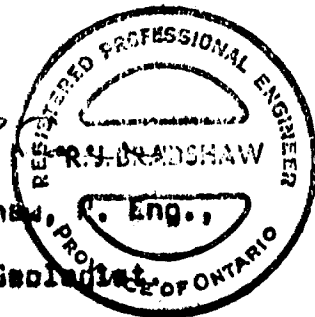
I attended Queen's University, Kingston, Ontario, and graduated with an Honours B.A. degree in Geological Sciences in 1958.

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 the Province of Ontario.

I have no interest either directly or indirectly in the shares or securities of Canadian Magnamont Ltd.

Timmins, Ontario,
June 16, 1972.


R. J. Bradshaw,
Consulting Geologist



A P P E N D I X

ELECTROMAGNETIC SURVEY METHOD AND INSTRUMENT DATA

A Ronka EM 16, number 35, was used for the survey.

This instrument is simply a sensitive receiver covering the frequency of the new VLF-transmitting stations with means of measuring the vertical field components. The VLF-transmitting stations operate for communications with submarines at frequencies between 17.8 and 24.0 Khz. The vertical antenna current of these transmitting stations creates a concentric horizontal magnetic field around them. When these magnetic fields meet conductive bodies in the ground, there will be secondary field radiating from these bodies. This equipment measures the vertical components of these secondary fields.

The receiver has two inputs, with two receiving coils built into the instrument. One coil has a normally vertical axis and the other is horizontal.

The signal from the coil with vertical axis is first minimized by tilting the instrument. The tilt angle is calibrated in percentages. The remaining signal in this coil is finally balanced out by a measured percentage of signal from the other coil.

After a suitable station is selected, at right angles to the direction of the survey lines, readings are made of the in-phase and quadrature components where the signal has been minimized to its greatest degree. The VLF-transmitting stations at Cutler, Maine, was used for this survey.

The lower end of the handle will, as a rule, point towards the conductor and the instrument is so calibrated that when approaching a conductor, the angles are positive in the in-phase component.

As with any electromagnetic unit, the largest and best conductors give the highest ratio of the in-phase and quadrature components.



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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 Electromagnetic
 Township or Area Adams Township
 Claim holder(s) Canadian Magnemont Ltd.
 Author of Report R. J. Bradshaw
 Address 26 Pine St. S., Timmins, Ontario
 Covering Dates of Survey June 5 - 11, 1972
 (linecutting to office)
 Total Miles of Line cut 7.33

MINING CLAIMS TRAVERSED
List numerically

- P 279231 (prefix) (number)
- P 279232
- P 279233
- P 279234
- P 279235
- P 278770
- P 279279
- P 279962
- P 279963
- P 279965
- P 279966

SPECIAL PROVISIONS
CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.
 ENTER 20 days for each additional survey using same grid.

Geophysical DAYS per claim
 --Electromagnetic 40
 --Magnetometer _____
 --Radiometric _____
 --Other _____
 Geological _____
 Geochemical _____

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

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

DATE: June 16, 1972 SIGNATURE: [Signature]
 Author of Report

PROJECTS SECTION

Res. Geol. _____ Qualifications in this file
 Previous Surveys 2

Checked by _____ date _____

GEOLOGICAL BRANCH _____

Approved by _____ date _____

GEOLOGICAL BRANCH _____

Approved by _____ date _____

TOTAL CLAIMS 11

OFFICE USE ONLY

If space insufficient, attach list

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations 387 Number of Readings 550 approx.
Station interval 100'
Line spacing 400'
Profile scale or Contour intervals Profile scale: 1" = 40%
(specify for each type of survey)

MAGNETIC

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

ELECTROMAGNETIC

Instrument Ronka EM 16
Coil configuration _____
Coil separation infinite
Accuracy + or - 1%
Method: Fixed transmitter Shoot back In line Parallel line
Frequency 17.8 Kc - Cutler, Maine
(specify V.L.F. station)

Parameters measured _____

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 _____

Deloro Twp - M.272

THE TOWNSHIP
OF

ADAMS

DISTRICT OF
TIMISKAMING

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 along the shores of all lakes and rivers.

2.930

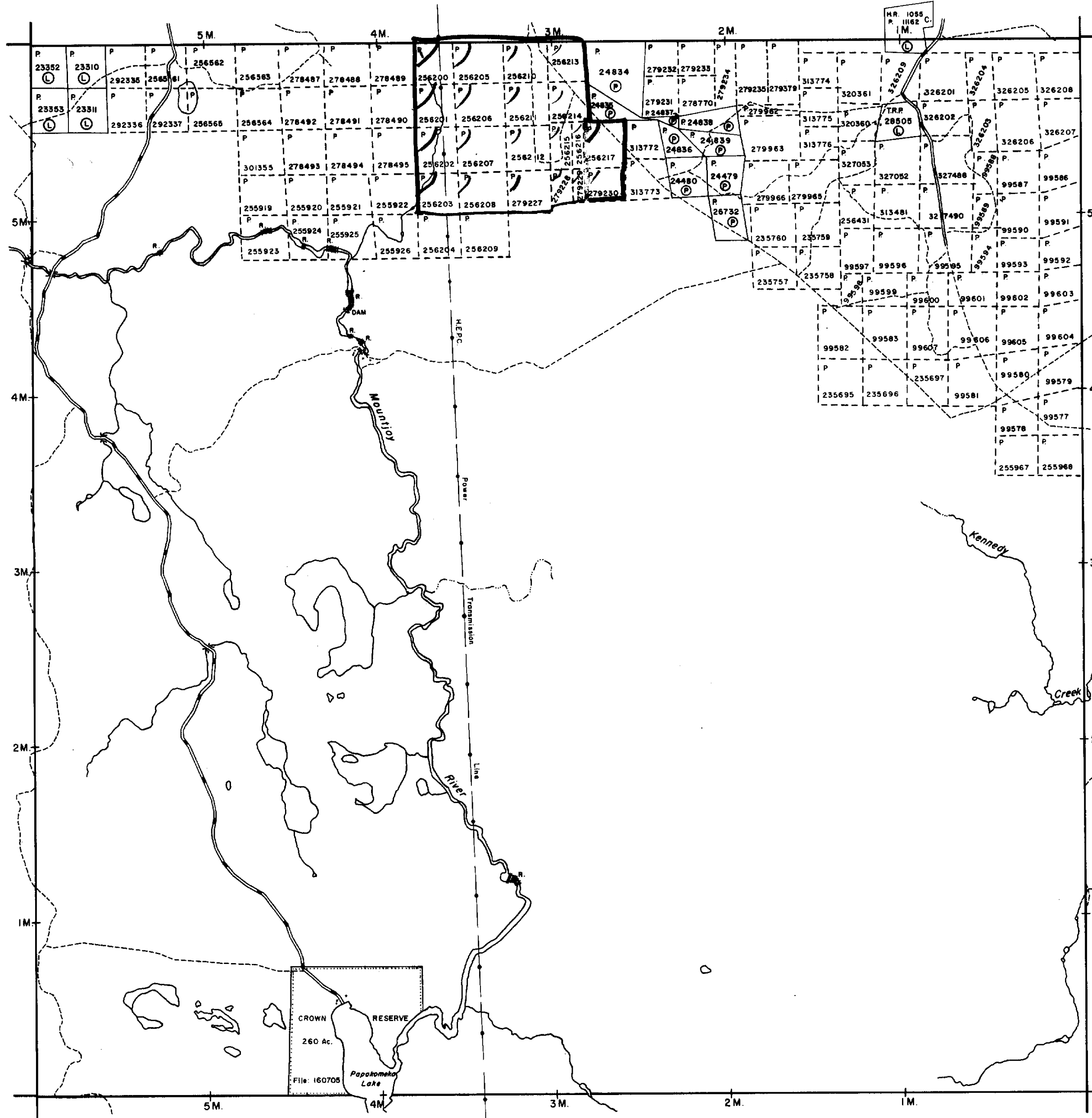
DATE OF ISSUE

JUL 13 1972

ONT. DEPT. OF MINES
AND NORTHERN AFFAIRS

PLAN NO. M.261

ONTARIO
DEPARTMENT OF MINES
AND NORTHERN AFFAIRS

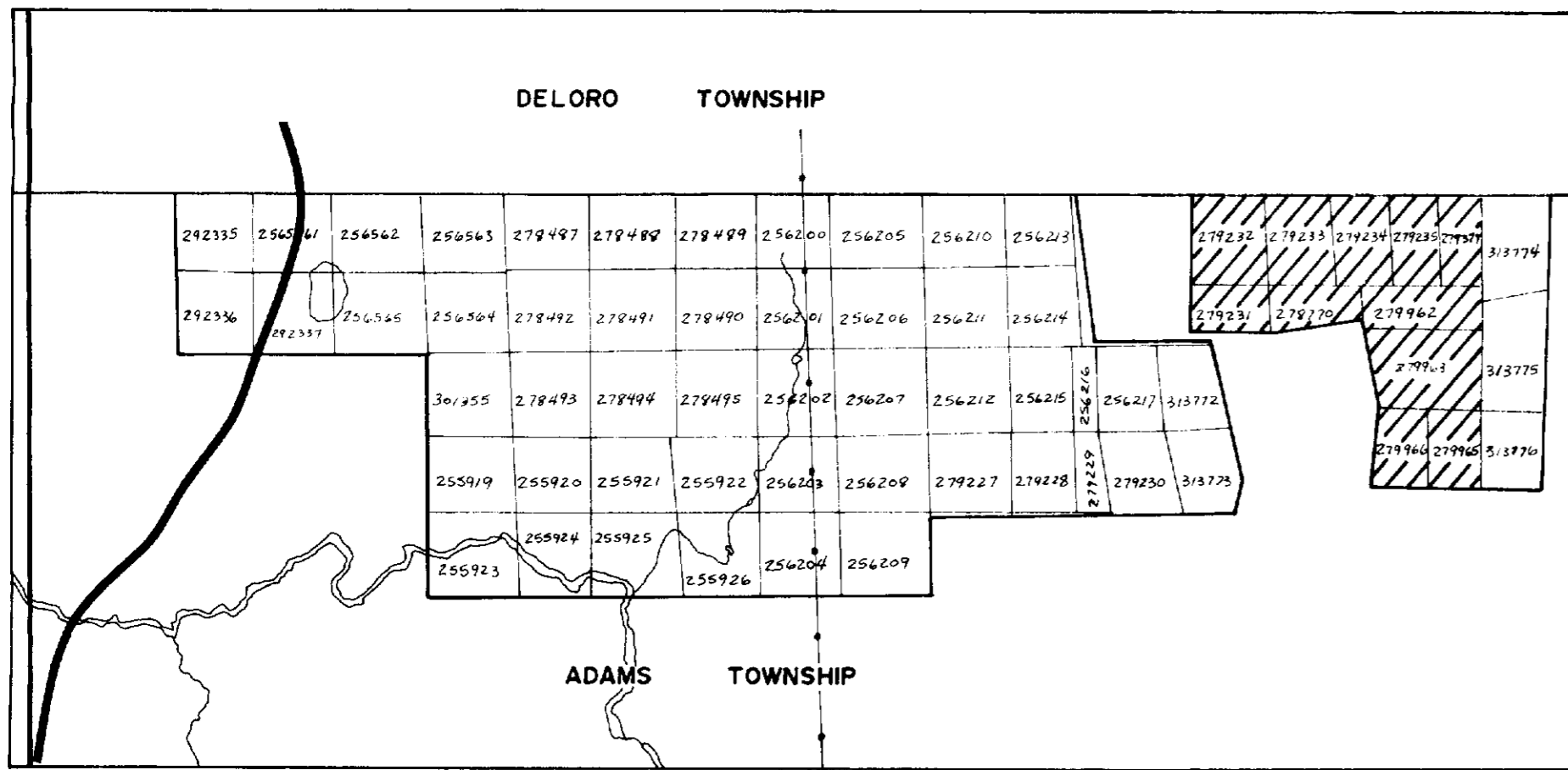
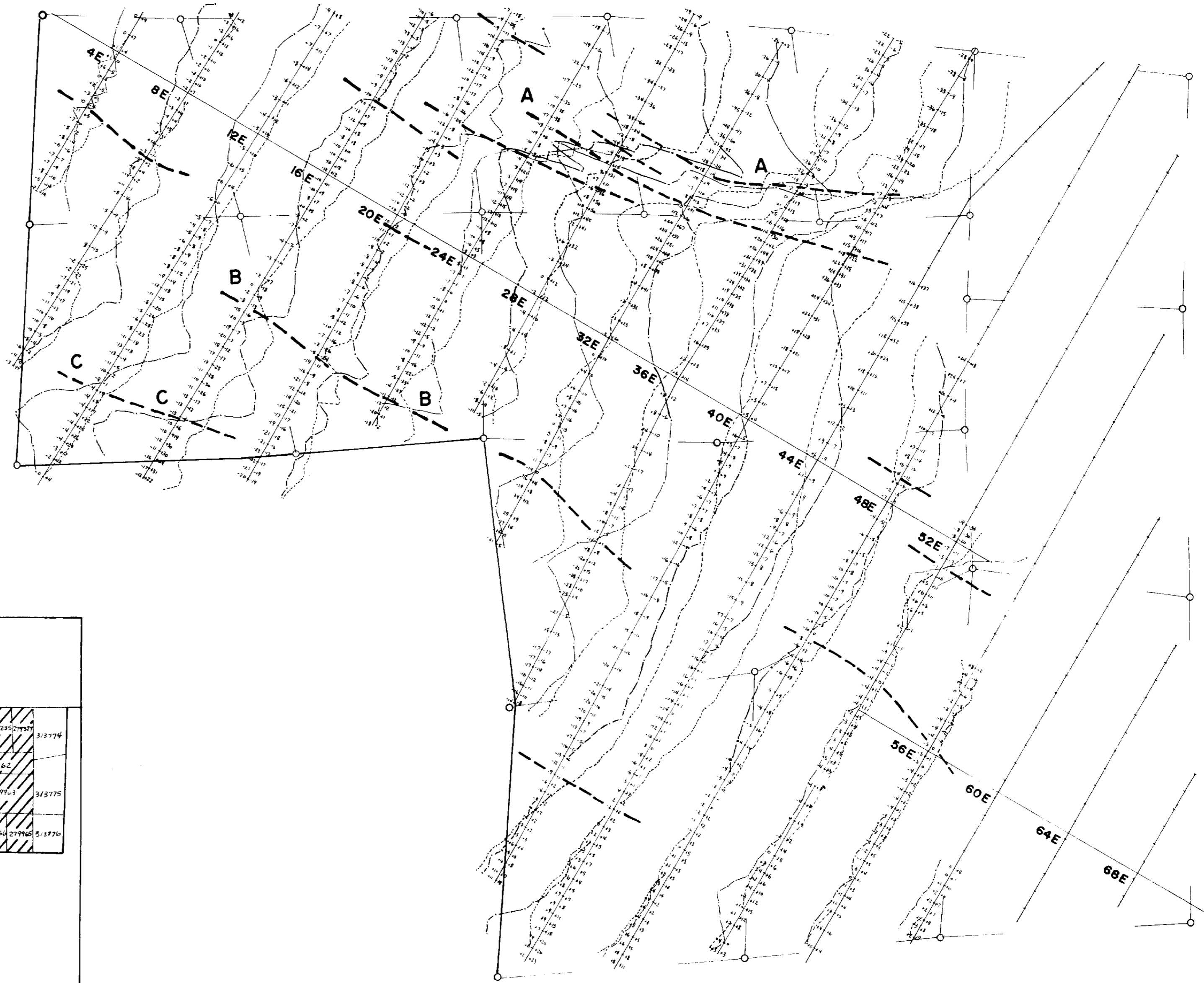


Price Twp - M.307

Eldorado Twp - M.276

McArthur Twp - M.298





KEY MAP
one inch to one half mile

LEGEND

- Measurement station along picket line
- In phase readings (%) plotted to right of line
- Quadrature readings (%) plotted to left
- Profile scale: 1" = 40%
- Conductor axis

INSTRUMENT: Ronka EM 16 - No. 36; Readings taken using station NAA, Cutler, Maine.

ELECTROMAGNETIC SURVEY
ON THE PROPERTY OF
CANADIAN MAGNEMONT LTD.

ADAMS TOWNSHIP, ONTARIO

BY
SHIELD GEOPHYSICS LIMITED

SCALE



I. B. ...
June 16, 72

JUNE

1972

