



41P12SW0018 2.3432 BENNEWIS

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MINING LANDS SECTION

MAGNETIC - ELECTROMAGNETIC SURVEY

on the

WILLIAM SIMS PROPERTY

Chester Township, Ontario

Timmins, Ontario,

August 26, 1980.

R. J. Bradshaw, P. Eng.,

Geologist.

INTRODUCTION

Magnetic and electromagnetic surveys have been completed on a property held by William Sims of Mississauga, Ontario in Chester Township, Ontario.

The picket lines were established on the claim group in July and the survey was completed in the first half of August, 1980.

Two gold occurrences are present on the property. The geophysical work constitutes a preliminary stage of exploration to evaluate the significance of the known gold occurrences and provide a base for more detailed exploratory work.

PROPERTY, LOCATION AND ACCESS

The property consists of 28 unpatented claims including P473081 to P473107 inclusive and P539977. Claims P473102, P473092, P473083, P473085, P473091 and P473081 were not covered by the survey work because of water cover.

The claim block is located in the northeast sector of Chester Township and adjoining Bennewick Township.

Highway 144, approximately 80 miles south of Timmins, traverses the claim block from south to north.

PREVIOUS WORK

Government assessment work files indicate that Lava Minerals Limited covered the south half of the Sims property in 1971 with an induced polarization survey in the search for porphyry type base metal deposits. No significant anomalies were discovered.

More recently, in 1979, Edward Blanchard presented an airborne magnetic survey and some accompanying assay data from surface sampling for assessment work on the Sims property.

GEOLOGY

Ontario Map 151 indicates that the north half of the claim group is underlain by granite and the south half by gabbro or diorite.

Along the west boundary of the property a major north-northwest trending fault is interpreted to follow the Masomikenda Lake system.

Gold occurrences on the property are described in a 1934 Ontario publication, Geology of the Makua-Churchill Area.

In the west sector of the property, presumably on claim P473092, an occurrence known as the No. 1 Eccles-Holmes showing is represented by a north striking quartz vein averaging a foot wide. Traced for 100 feet the vein is characterized by well silicified and pyritized wallrock. Grab samples taken by government staff yielded assays of 0.70 and 0.31 oz. gold per ton and 1.70 oz. of silver. Blanchard apparently sampled the vein and reports assays of 0.005, 0.06 and 0.48 oz. gold per ton. The writer visited the occurrence in the fall of 1979 and took 5 representative samples from the showing. The assays ranged from 0.01 to 0.08 oz. gold per ton.

A second occurrence known as No. 4 is described in the 1934 Ontario government publication. A quartz stringer 6 inches

wide is present in a shear zone 3 to 5 feet wide which strikes northwest for an exposed length of about 40 feet. A grab sample by the government geologist assayed 2.58 oz. gold per ton. The occurrence apparently coincides with the location of a shaft described by Blanchard on claim P473089 where he reports an assay of 0.59 oz. gold per ton across 3.5 feet.

MAGNETIC SURVEY RESULTS AND INTERPRETATION

The magnetic survey data is plotted and contoured 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.

The magnetic background of the property is in the range of 100 to 300 gammae and the isomagnetics trend northwest to west. Numerous small lensoidal magnetic highs and lows are present on the claim group; however, three distinct rock units appear to be represented by the overall magnetic pattern.

Along Line 8 West a crescent shaped anomaly trending about north appears to mark the contact of a rock unit to the east which may be a diorite plug because of the nonconforming isomagnetics.

About the centre property extending west-northwest from the lake on claim P473083 is an unusually long well defined magnetic anomaly, slightly offset at Line 20 West. This feature is thought to represent a contact zone between two differing rock types, perhaps granodiorite to the north and a more felsic intrusive to the

south. Fewer magnetic highs are present to the south.

Of interest is that the gold occurrences, previously described, are located very close to or on this magnetic linear.

ELECTROMAGNETIC SURVEY RESULTS AND INTERPRETATION

The 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.

Numerous generally west trending conductive zones are present in the survey area. Because of the comparatively shallow nonconductive overburden in the area, most of these features are interpreted to represent bedrock features. Weak to strong these zones are the most likely cause of the conductive zones; the strongest conductors may be representative of sulphides. Within several hundred feet of the power line trending northwest through the property electrical interference masks subsurface readings of the in phase and quadrature components.

In the centre of the property a weak conductor termed A on the accompanying plan corresponds in part with the magnetic linear previously described, thought to represent a contact zone between granodiorite to the north and a felsic intrusive to the south.

Those conductors termed B on the accompanying plan are representative of relatively strong shearing perhaps associated with sulphides.

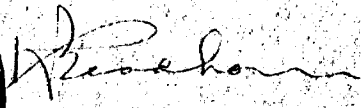
CONCLUSIONS AND RECOMMENDATIONS

Published geological data in the area is very limited and corresponds poorly with the magnetic data on the property. The magnetic survey suggests the presence of three different rock units within the property.

To the east in Sennawaia Township a circular plug of diorite is interpreted to intrude a granodiorite mass in the north half of the property. A magnetic linear, along which two gold occurrences are present, is thought to represent a sheared contact zone between the granodiorite to the north and a less magnetic felsic intrusive to the south.

A detailed geological survey is the logical next step in the evaluation of this property. At the same time stripping and earth moving should be undertaken to expose the stronger conductive zones and the gold occurrences. An amount of \$12,000. should be allocated for this programme. Subsequently, drilling is likely to be required.

Respectfully submitted,
SHIELD GEOPHYSICS LIMITED,


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

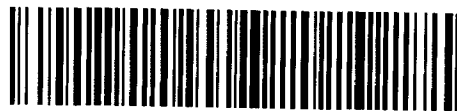
Timmins, Ontario,
August 21, 1980.





Ministry of N

GEOPHYSICAL - GEOL
TECHNICAL D.



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File _____

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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(s) Magnetic & Electromagnetic
Township or Area Chester & Benneweiss Townships
Claim Holder(s) William Sims
Mississauga, Ontario
Survey Company Shield Geophysics Limited
Author of Report R. J. Bradshaw
Address of Author Box 630, Timmins, Ontario
Covering Dates of Survey July 1 - August 15, 1980
(linecutting to office)
Total Miles of Line Cut 20.4 miles

MINING CLAIMS TRAVERSED
List numerically

P. 473082
(prefix) (number)
473084
473086
473087
473088
473089
473090
473093
473094
473095
473096
473097
473098
473099
473100
473101
473104
473105
473106
473107
539977
473102

If space insufficient, attach list

SPECIAL PROVISIONS
CREDITS REQUESTED

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

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

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

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

DATE: August 29, 1980 SIGNATURE: [Signature]
Author of Report or Agent

Res. Geol. _____ Qualifications (B. 113)

Previous Surveys

File No.	Type	Date	Claim Holder
			L.D.

TOTAL CLAIMS 22

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 980 Number of Readings approx. 980
Station interval 100' Line spacing 400'
Profile scale 1" = 40% EM
Contour interval 100 gammas

MAGNETIC

Instrument Sharpe M.F.-1 fluxgate magnetometer
Accuracy - Scale constant + or - 10 gammas
Diurnal correction method
Base Station check-in interval (hours)
Base Station location and value located at cross lines at 400 foot intervals along base line

ELECTROMAGNETIC

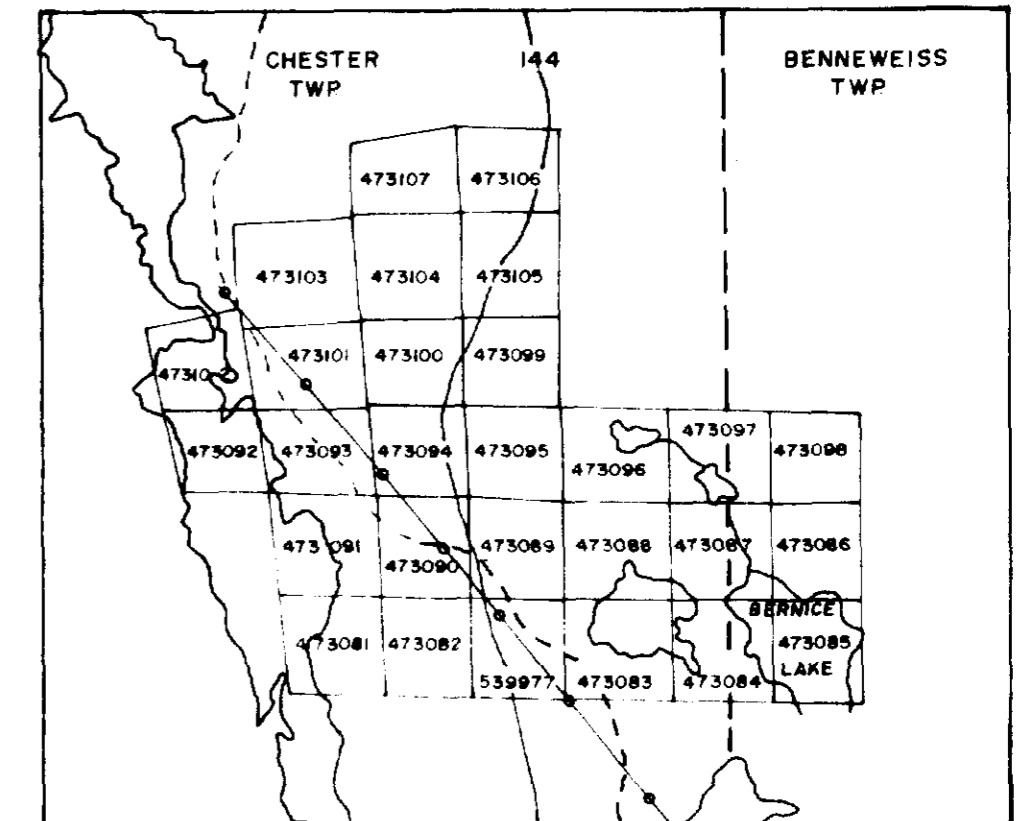
Instrument Ronka EM 16
Coil configuration vertical
Coil separation infinite
Accuracy + or - 4%
Method: [x] Fixed transmitter [] Shoot back [] In line [] Parallel line
Frequency Cutler, Maine 17.8 Khz. (specify V.L.F. station)
Parameters measured vertical field and quadrature field components

GRAVITY

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

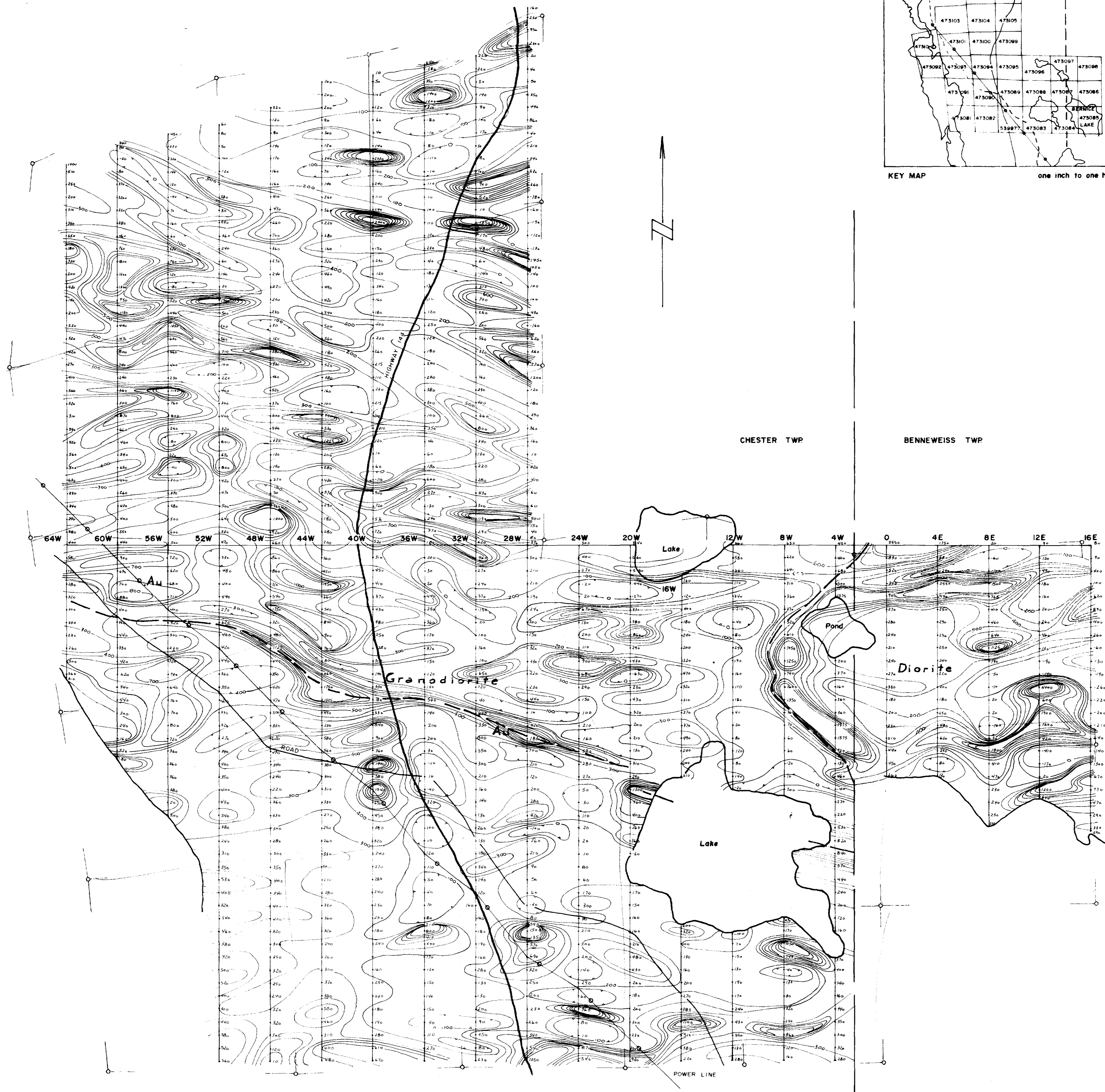
INDUCED POLARIZATION RESISTIVITY

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







KEY MAP

one inch to one half mile



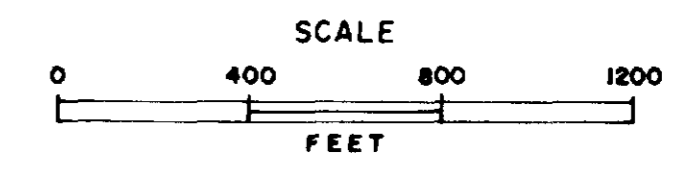
LEGEND

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

INSTRUMENT: Sharpe MF-1 fluxgate magnetometer
 Contour Interval: 100 gamma intervals

MAGNETOMETER SURVEY
 ON THE
 WILLIAM SIMS PROPERTY
 CHESTER TOWNSHIP, ONTARIO

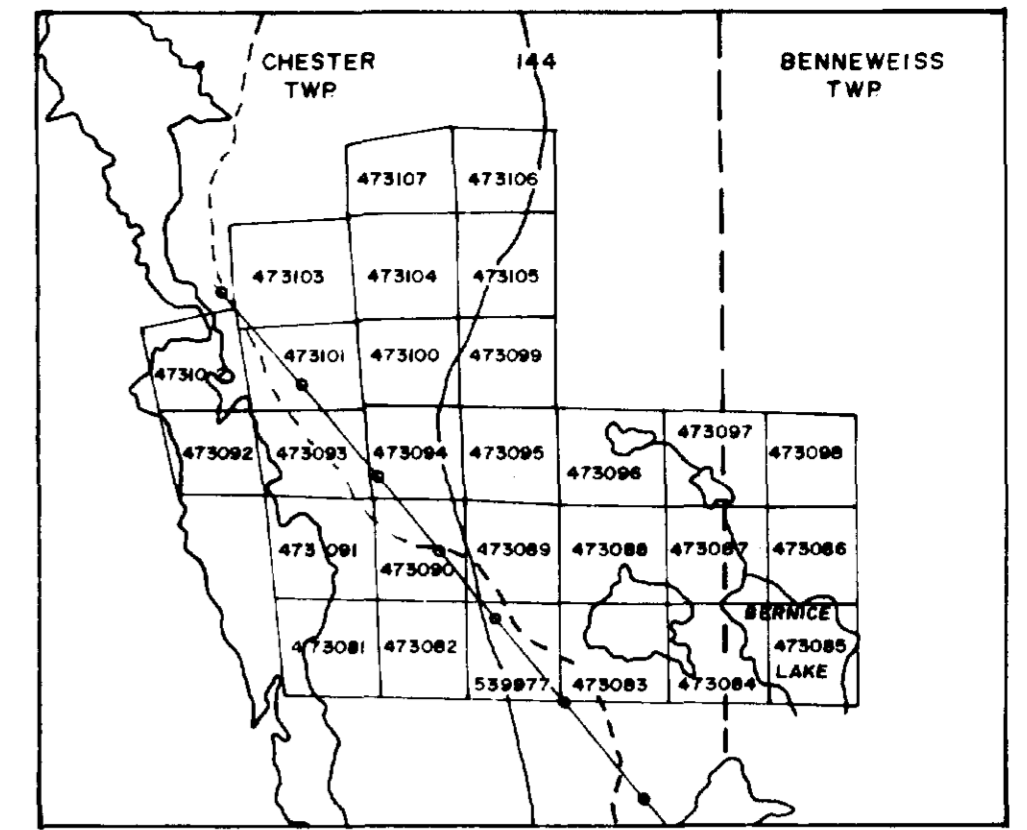
by SHIELD GEOPHYSICS LIMITED



AUGUST

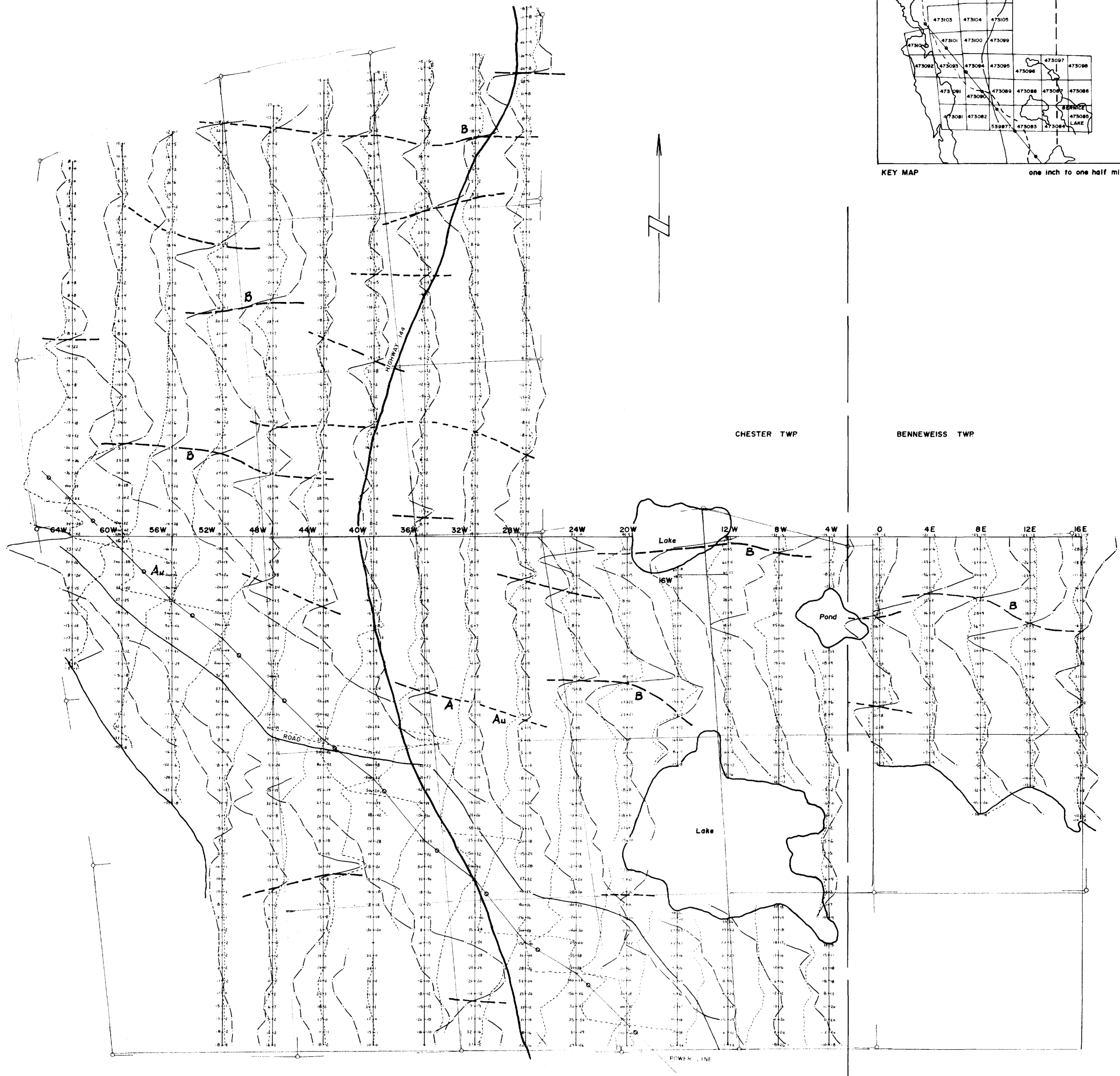
1980





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
- Quadrature profile
- Conductor - well defined, weaker

INSTRUMENT: Ronko EM 16

ELECTROMAGNETIC SURVEY
ON THE
WILLIAM SIMS PROPERTY
CHESTER TOWNSHIP, ONTARIO

by SHIELD GEOPHYSICS LIMITED

SCALE



AUGUST

1980



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