



52F16NE8224 2.4876 KABIK LAKE

2.4876 24876

Dept

010



EXPLORATION

EASTERN DISTRICT

TAK PROPERTY

ONTARIO

ASSESSMENT REPORT

JUNE 1982

NTS: 52-F-16

JUNE 1982

K.N. HENDRY
SR. GEOPHYSICIST



52F16NE8224 2.4876 KABIK LAKE

010C

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COMINCO LTD.

EXPLORATION

EASTERN DISTRICT

NTS: 52-F-16

TAK PROPERTY

ONTARIO

ASSESSMENT REPORT

JUNE 1982

JUNE 2, 1982

K.N. HENDRY

1. INTRODUCTION

A ground EM and magnetometer survey was carried out on the Tak Property, Sioux Lookout area, northwestern Ontario during the period January 3, 29, 30, 31 and February 1, 16 and 17, 1982. The work was performed by R. Lavigne, technician and A.N. Samis, geologist from Cominco Ltd., Toronto. 4.5 km of EM and 19.875 km of magnetic data were collected.

The purpose of the survey was to extend the previous magnetic data coverage and explore for EM conductors under the lake.

2. LOCATION

The property is about 30 km south of Sioux Lookout on Minnitaki Lake, Pickercel Arm and can be reached by boat in the summer.

3. EQUIPMENT AND PROCEDURES

A Geonics VLF EM-16 unit was utilized to acquire the EM data. The station in Cutter, Maine NAA operating at a frequency of 17.8 khz was the source of the primary field. Normal reading procedures were used and all readings were obtained facing grid north.

A Scintrex MF-1 fluxgate magnetometer was used to acquire the magnetic data. During the survey, a breakdown dictated a change to a Geometrics proton precession magnetometer. The fluxgate unit meter can be read to ± 5 gammas or better. The smallest division is 10 gammas. The data is vertical field and is an arbitrary level relative to a local base. The proton precession unit reads in total field and is accurate to ± 1 gamma. As the local inclination is about $75-80^\circ$, the results from the two instruments are comparable after the fluxgate data is corrected to absolute values. No drift or diurnal corrections were made other than returning to the beginning of a line to check diurnal.

4. DATA PRESENTATION

The magnetic data is plotted in plan form and contoured at 250 gamma intervals. The new readings were added to an existing data set gathered in 1980 and 1981.

The VLF-EM instrument was read in percent of real and quadrature components and plotted in profile form. The data was also filtered using the "Fraser filter" to smooth and convert to a contourable form. Horizontal and vertical scales are as indicated on each sheet.

5. DISCUSSION OF RESULTS

VLF-EM Plates 2, 3

A relatively large number of conductors were located with the VLF-EM method in this small area. Several of the anomalies correlate with the lakeshore where a significant change in resistivity occurs: high resistivity bedrock on shore and low resistivity (high conductivity) lake bottom sediments. The only conductor which does not appear to be due to obvious lakeshore effects is found on lines 00 and 1+00E between 5+75N and 7+00N. It could be explained as a conductive infilled, lake-bottom, valley.

Magnetic Results

The recent data have added detail and located several isolated strong magnetic features. The property falls within a northeast trending belt of magnetic sediments and volcanics and a significant contact/fault would appear to be located along Pickeral Arm.

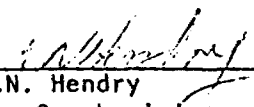
The magnetic gradient is low throughout the grid area. Small magnetic features are found within the property such as the volcanic unit between lines 13W to 26W and numerous other smaller bodies often with intensities of 1-3000 gammas. These features are shallow, near surface or outcropping.

6. CONCLUSIONS

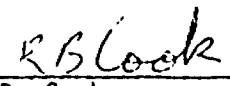
Several EM conductors located in the lake area probably relate to resistivity contrasts as a result of conductive sediments along the lake shore.

Strong magnetic anomalies found throughout the property correlate with volcanic units and clarify the structural relationships.

Submitted by:


 K.N. Hendry
 Sr. Geophysicist
 Exploration, Eastern District

Endorsed by:


 R.B. Cook
 Assistant Manager
 Exploration, Eastern District



1983 06 30

Recorded Holder

COMINCO LTD

Township or Area

KABIK LAKE AND PICKEREL TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	
Electromagnetic _____ 18 days	<u>For Electromagnetic Only:</u>
Magnetometer _____ 20 days	PA 551456 to 59 inclusive
Radiometric _____ days	<u>For Magnetometer only:</u>
Induced polarization _____ days	PA 551444 to 46 inclusive
77(19)	PA 551448 : 4 49 :
Section 88(18) _____ days	PA551452 to 75 inclusive
Geological _____ days	
Geochemical _____ days	
Man days <input type="checkbox"/> Airborne <input type="checkbox"/>	
Special provision <input checked="" type="checkbox"/> Ground <input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> Credits have been reduced because of partial coverage of claims.	
<input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	
77(16)	

Special credits under section ~~88(18)~~ for the following mining claims

5 days Credit for Magnetometer
PA 551450-51

10 days Credit for Magnetometer
PA 551447

No credits have been allowed for the following mining claims

- not sufficiently covered by the survey
- Insufficient technical data filed



Ministry of
Natural
Resources
Ontario

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

82-61

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.

F.W.M. Mining lands

The Mining Act

Type of Survey(s) Electromagnetic and Magnetometer	Township or Area Kabik Lake? M-2258 Pickerel Twp.
Claim Holder(s) Cominco Ltd.	Prospector's Licence No.
Address 1700-120 Adelaide St.W. Toronto, Ont. M5H 1T1	
Survey Company Cominco employees	Date of Survey (from A to) 3 82 28 2 82 Day Mo. Yr. Day Mo. Yr.
Name and Address of Author (of Geo-Technical report) K.N. Hendry	

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	20*
	- Magnetometer	20
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Geological	
	Geochemical	
	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
PA	551444		PA	551467	
	551445			551468	
	551446			551469	
	551447			551470	
	551448			551471	
	551449			551472	
	551450			551473	
	551451			551474	
	551452			551475	
	551453				
	551454				
	551455				
	551456 *				
	551457 *				
	551458 *				
	551459 *				
	551460				
	551461				
	551462				
	551463				
	551464				
	551465				
	551466				

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.

Pa. 551444 Total number of mining claims covered by this report of work. 32

Date June 4, 1982 Recorded Holder or Agent (Signature) *K.N. Hendry*

For Office Use Only

Total Days Cr. Recorded 720 Date Recorded June 8, 1982 Mining Recorder *R. H. ...*

Date Approved as Recorded *[Signature]* Branch Director

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.

Name and Postal Address of Person Certifying
K.N. Hendry 183 Digby Road
Oakville, Ont. L6L 6A8

Date Certified June 4, 1982 Certified by (Signature) *[Signature]*

	Em	mag.				
PA 551444	1/4	1/4	OK!			
45		✓				
46		1/4	OK!			
*47		1/2				
48		1/4	OK!			
49		✓				
*50		3/4	Small claim			
*51		3/4				
52		1/4	OK!			
53		X				
54		X				
55		X				
56	1/4	X				
57	✓	X				
58	✓	X				
59	1/4	X				
60		X				
61		X				
62		X				
63		1/2				
64		X				
65		X				
66		X				
67		X				
68		X				
69		X				
70		X				
71		X				
72		X				
73		X				
74		X				
75		X				
claim						
4x20						
4.5						



Mining Lands Comments

(- maps not signed.)

To: Geophysics *Mr. Barlow*

Comments

Approved Wish to see again with corrections Date *April 29/03* Signature *R. Barlow*

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

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations VLF 180/MAG 795 Number of Readings VLF 360/MAG 745
Station interval 25m Line spacing
Profile scale VLF /cm 20%
Contour interval Mag 250 gammas (nanoteslas)

MAGNETIC

Instrument Scintrex MF-1 / Geometrics G 8/6
Accuracy - Scale constant + 5 gammas nanoteslas/ + 1 gamma
Diurnal correction method None
Base Station check-in interval (hours) 0.5
Base Station location and value Beginning of Line

ELECTROMAGNETIC

Instrument Geonics E.M. 16
Coil configuration N/A
Coil separation N/A
Accuracy +1%
Method: [X] Fixed transmitter [] Shoot back [] In line [] Parallel line
Frequency 17.8 KHZ NAA Cutler Maine (specify V.L.F. station)
Parameters measured Tilt Angle 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

1982 07 05

2.4876

Mining Recorder
Ministry of Natural Resources
P.O. Box 669
Sioux Lookout, Ontario
POV 2T0

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 PA 551444 et al in the Areas of Kabik Lake and Pickerel Township.

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 6430
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1316

J. Skura/sc

c.c. Cominco Limited
1700-120 Adelaide Street West
Toronto, Ontario
M5H 1T1

c.c. K.W. Hendry
183 Digby Road
Oakville, Ontario
L6L 6A8

May 25, 1983

2.4876

Comineo Ltd.
1700-120 Adelaide Street, West
Toronto, Ontario
M5H 1T1

Attention: Mr. K. Hendry

Dear Sirs:

RE: Geophysical (Electromagnetic & Magnetometer)
Survey submitted on Mining Claims PA 551444 et al
in the Area of Kabik Lake and Pickereel Township

Enclosed are the plans, in duplicate, for the above-mentioned survey. Please have Mr. K. Hendry date and sign each map and return them to this office.

For further information, please contact Mr. F.W. Matthews at 416/965-1380.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1380

R. Pichette: mc
Encls.

cc: Mining Recorder
Sioux Lookout, Ontario

Cominco Ltd./Suite 1700, 120 Adelaide St. W./Toronto, Ont., Canada/M5H 1T1
Tel. (416) 869-1850/Telex 06-22912/Cable (Comtor)

2,4876



Exploration

Mr. T.W. Matthews
Ministry of Natural Resources
Room 6450
Whitney Block
Queen's Park
TORONTO, Ont.
M7A 1W3

RECEIVED	
Land Management Branch	
CIRCULATE	<input type="checkbox"/>
COMMENTS PLEASE	<input type="checkbox"/>
BY	
JUN -9 1983	
E. F. ANDERSON	
J. R. MORTON	
J. G. SMITH	
G. SHERMAN	
J. W. BROWN	
J. W. BROWN	

June 6, 1983

Dear Mr. Matthews,

RE: YOUR FILE 2.4876 MINING CLAIMS
PA 551444 ET AL. PICKERAL TOWNSHIP

As requested in Mr. Anderson's letter of May 25th, I am returning herewith the maps in question signed and dated by K. Hendry.

Yours truly,

A handwritten signature in cursive script, appearing to read "R.C. LaRoche".

R.C. LaRoche
Records Technician
Exploration, E.D.

RCL/ijt

Enc.



Ministry of
Natural
Resources

July 15/83

Your file:

1983 06 30

Our file: 2.4876

Mr. Albert Hanson
Mining Recorder
Ministry of Natural Resources
P.O. Box 669
Sioux Lookout, Ontario
POV 2T0

Dear Sir:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact Mr. F.W. Matthews at 416/965-1380.

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

R. Pichette:mc

cc: Cominco Ltd
Suite 1700
120 Adelaide Street West
Toronto, Ontario
M5H 1T1

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
700 Bay Street
24th Floor
Box 330
Toronto, Ontario
M5G 1Z6



Ministry of
Natural
Resources

Ontario

Notice of Intent
for Technical Reports

1983 06 30

2.4876

An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on his record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted direct to the Lands Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.



Ministry of
Natural
Resources

Ontario

115507
52 F/16 NE (55)

Your file:

1983 07 22

Our file: 2.4876

Mr. Albert Hanson
Mining Recorder
Ministry of Natural Resources
P.O. Box 669
Sioux Lookout, Ontario
POV 2T0

Dear Sir:

RE Geophysical (Electromagnetic & Magnetometer) Survey
on Mining Claims PA 551444 et al in the Area of Kabik
Lake and Pickere] Township

The Geophysical (Electromagnetic & Magnetometer) Survey
assessment work credits as listed with my Notice of Intent
dated June 30, 1983 have been approved as of the above date.

Please inform the recorded holder of these mining claims and
so indicate on your records.

Yours very truly,

E. F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1380

for R. Pichette:sc

cc: Cominco Limited
Suite 1700
120 Adelaide Street W
Toronto, Ontario
M5H 1T1

cc: Mr. K.N. Hendry
183 Digby Road
Oakville, Ontario L6L 6A8

cc: Resident Geologist
Sioux Lookout, Ontario

Ministry of Natural Resources

RECEIVED

JUL 25 1983

RESIDENT GEOLOGIST
SIOUX LOOKOUT

JORDAN TWP. M. 2245

FOR STATUS REFER TO TWP. PLAN

Lyons

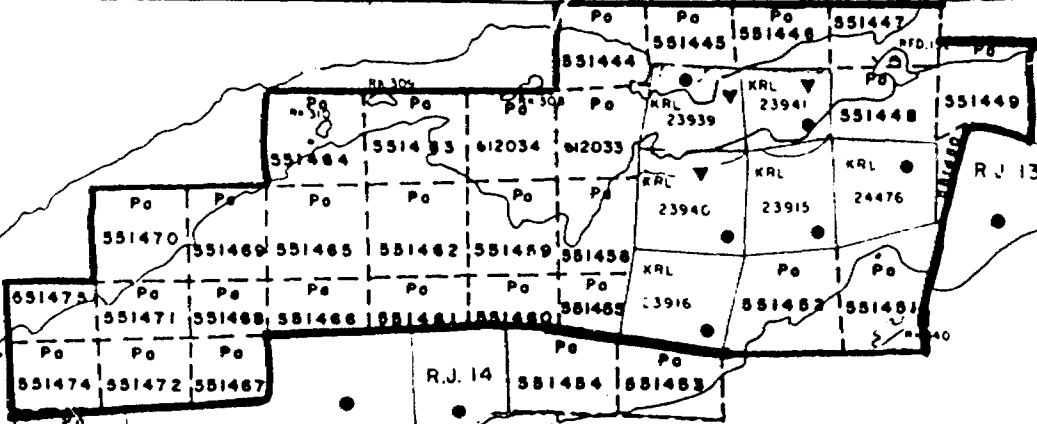
Boy

2M

3M

4M.

RD. 1



KABIK LK. M. 2258

SCALE: 1" = 40CH

SCALE: 1" = 40CH.

nitaki

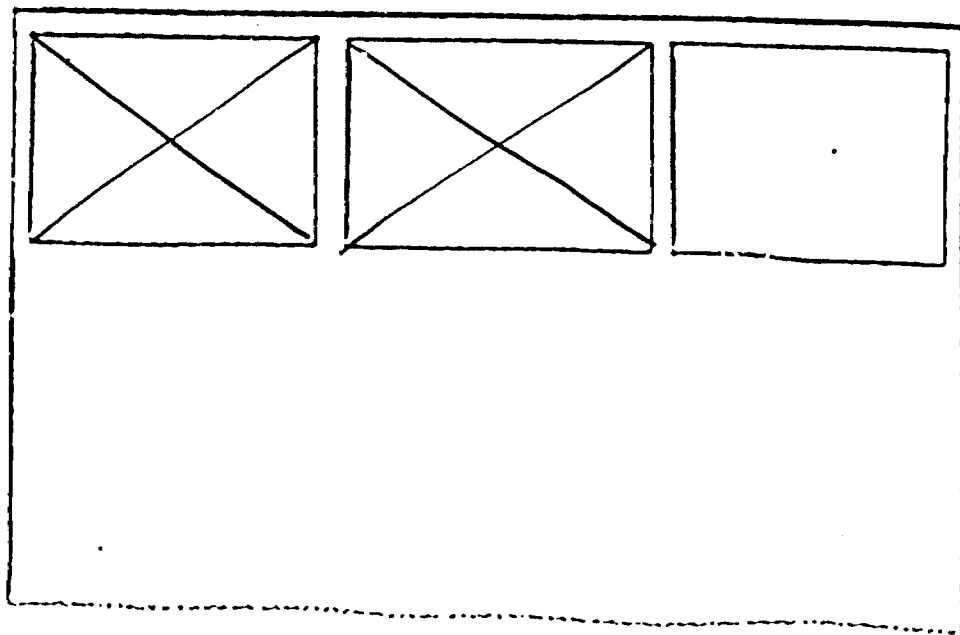
Lake

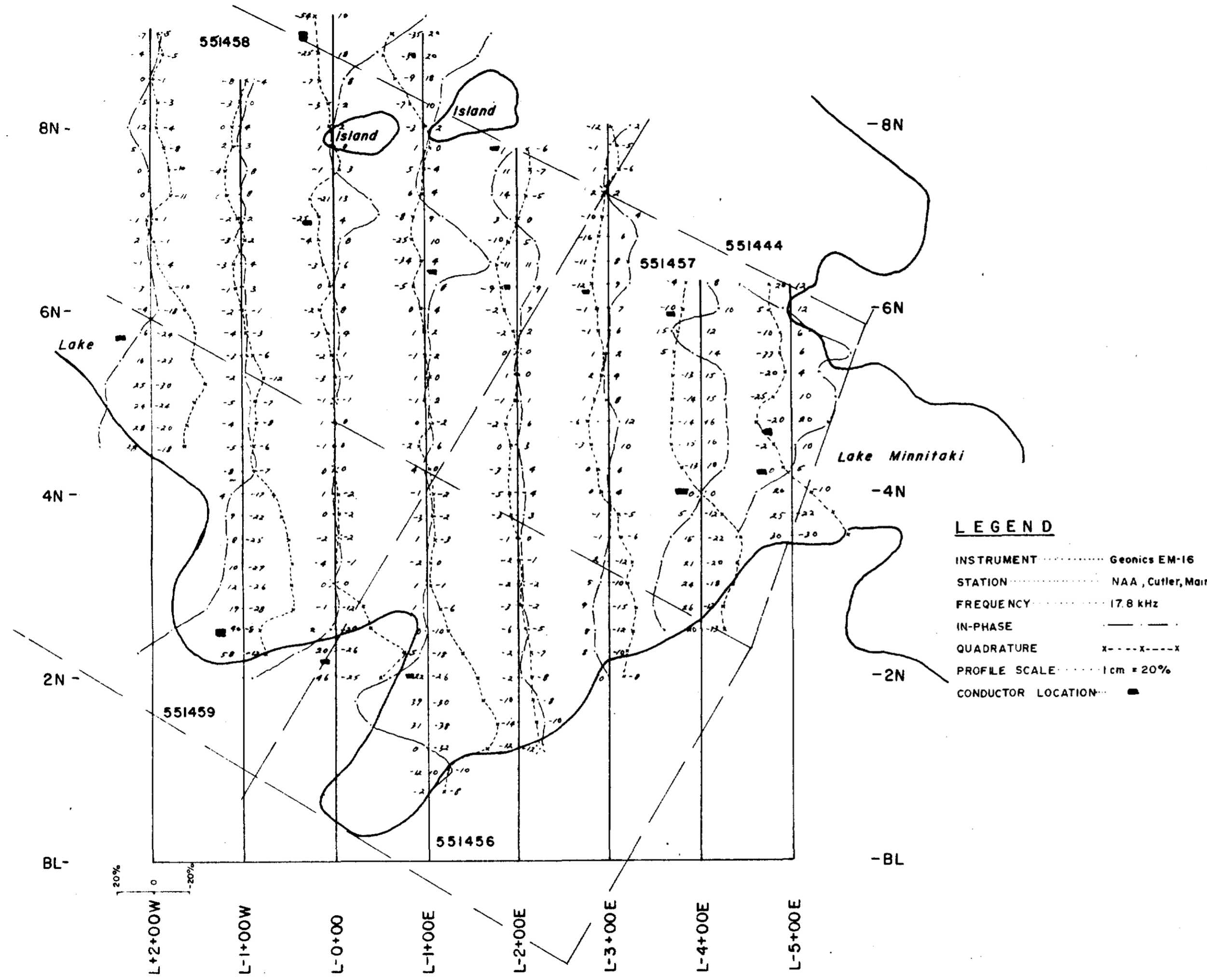
Dellos L.

Swi L.

SEE ACCOMPANYING
MAP(S) IDENTIFIED AS
52F/16NE-0026, #1, #2

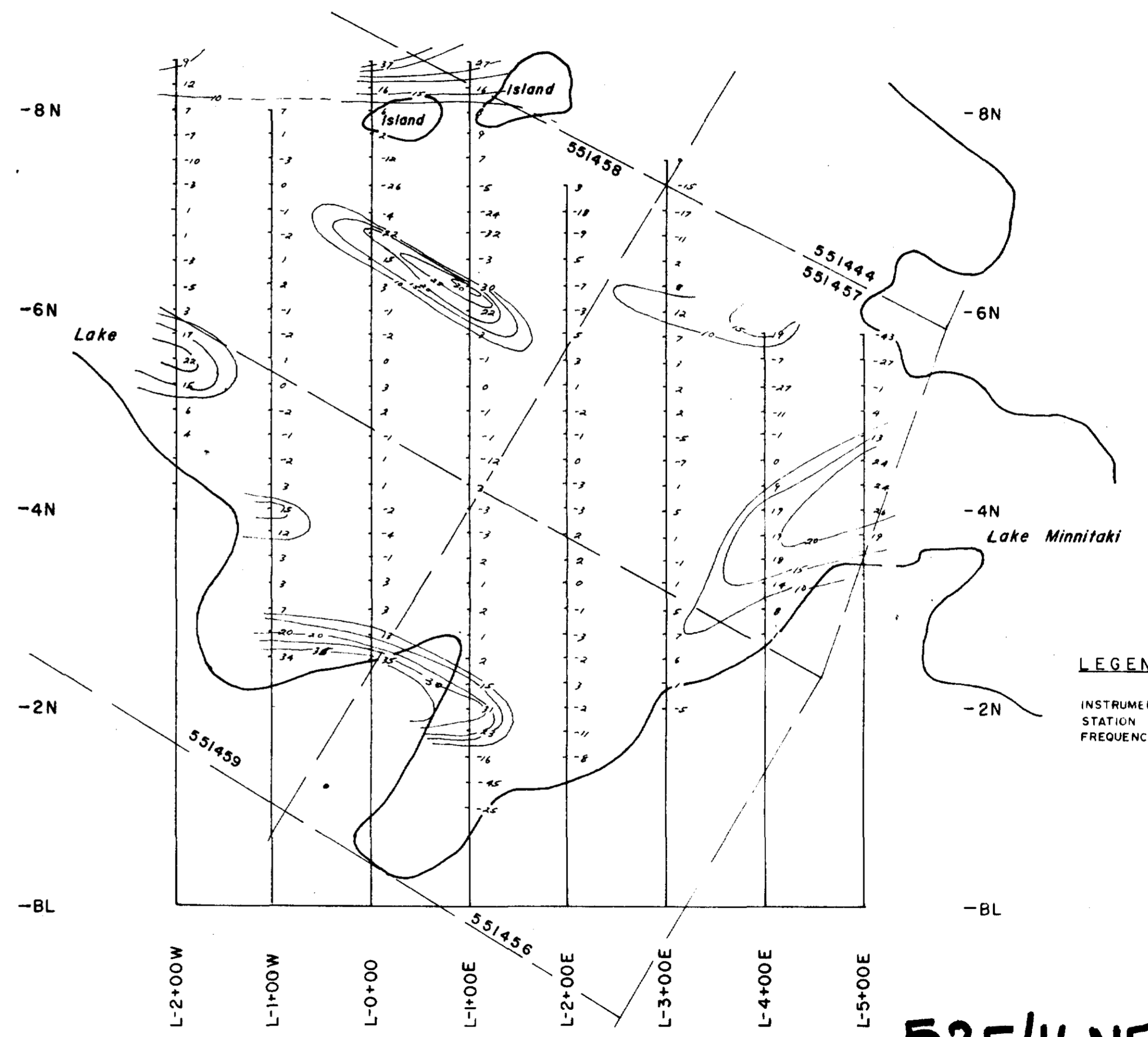
LOCATED IN THE MAP
CHANNEL IN THE FOLLOWING
SEQUENCE (X)





LEGEND

INSTRUMENT Geonics EM-16
 STATION NAA, Cutler, Maine
 FREQUENCY 17.8 kHz
 IN-PHASE
 QUADRATURE - - - - -
 PROFILE SCALE 1 cm = 20%
 CONDUCTOR LOCATION: ■



LEGEND

INSTRUMENT Geonics VLF-EM
 STATION NAA, Cutler, Maine
 FREQUENCY 17.8 kHz

EASTERN DISTRICT

Drawn by: K. N. H.	Traced by: K. B.
Revised by: _____	Revised by: _____
Revised by: _____	Revised by: _____
Revised by: _____	Revised by: _____
Revised by: _____	Revised by: _____

TAK PROPERTY
 VLF-EM PROFILES

ONTARIO N.T.S. 52-F-16
 Scale: 1:4000 Date: May 1982 Plate: _____

52F/16NE-0026-1

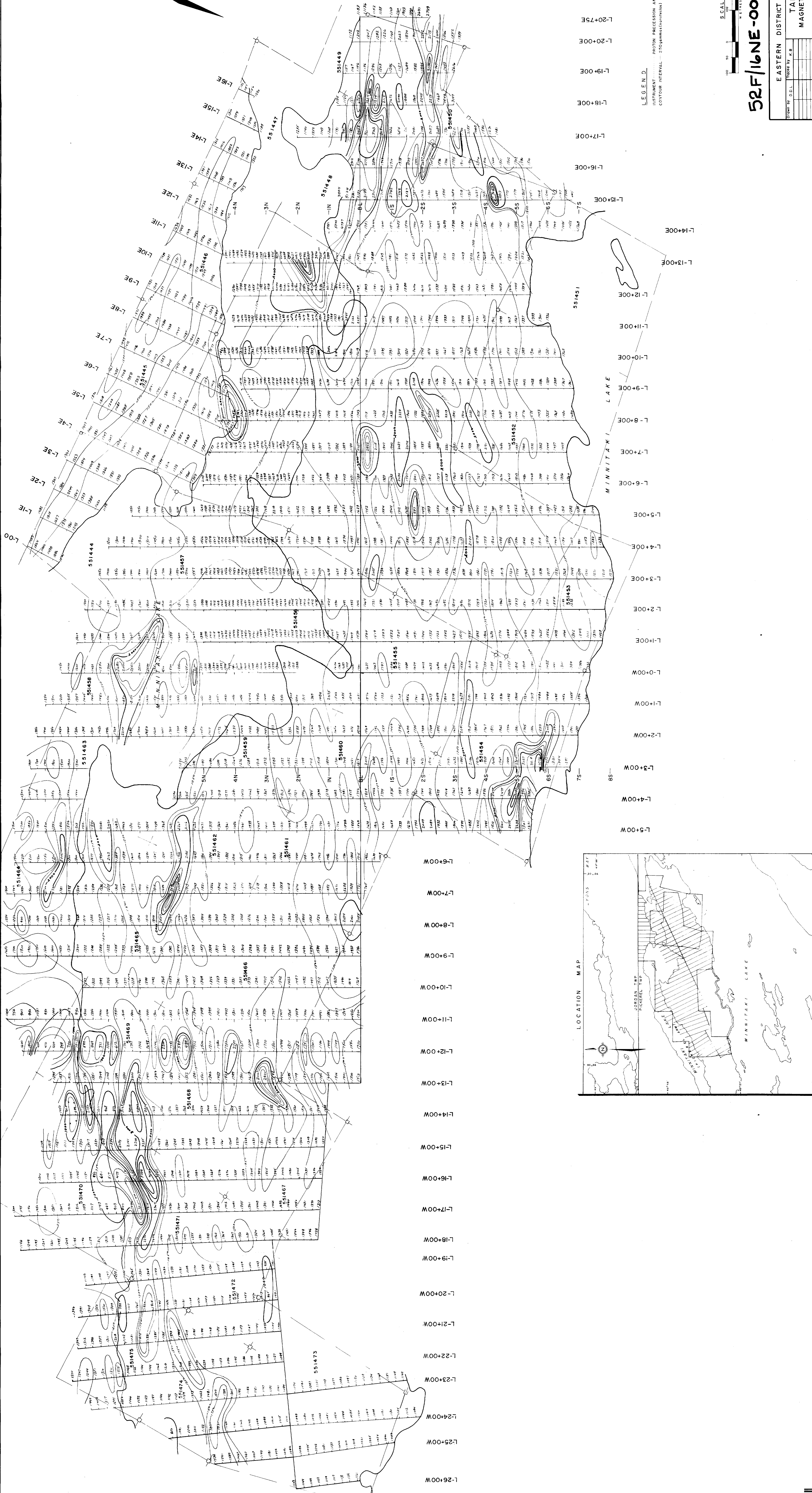
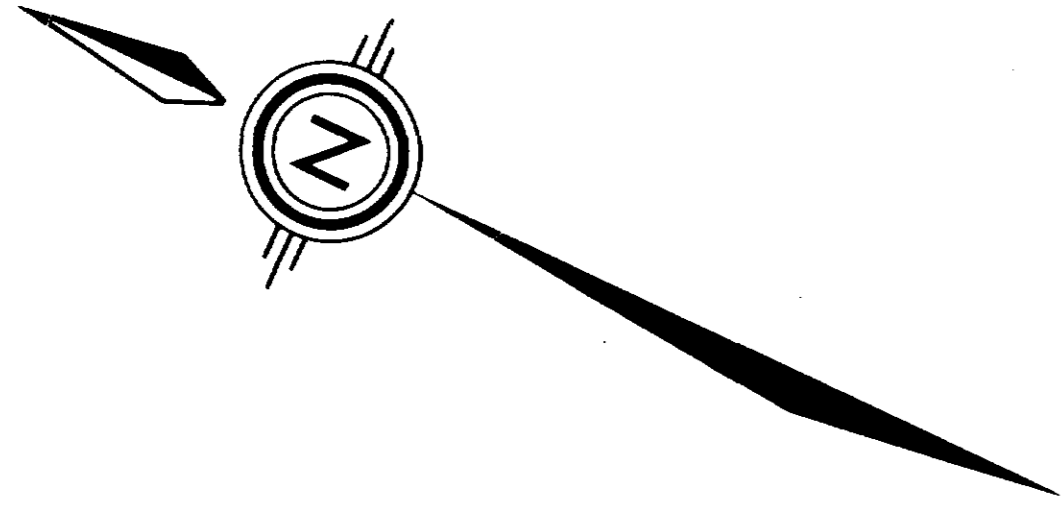
EASTERN DISTRICT

Drawn by: K. N. H.	Traced by: K. B.
Revised by: _____	Revised by: _____
Revised by: _____	Revised by: _____
Revised by: _____	Revised by: _____
Revised by: _____	Revised by: _____

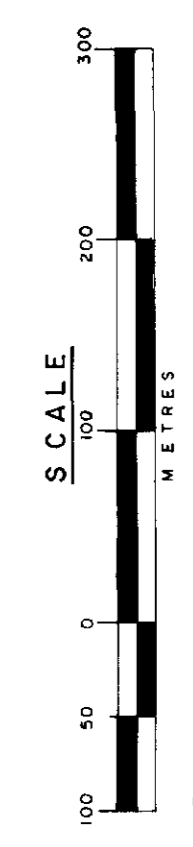
TAK PROPERTY
 VLF-EM FRASER FILTER

ONTARIO





LEGEND
PROTON PRESSION AND FLUGGATE UNITS
CONTOUR INTERVAL: 250 (meters)



52F/16NE-0026-2

EASTERN DISTRICT	
TAK PROPERTY SURVEY	
MAGNETOMETER SURVEY	
Drawn by: G.B.L.	Scale: 1:4000
Ontario	Date: August 1980
Sheet 3	of 3

