



42A05NE0011 2.3045 GODFREY

COMINCC

010

EXPLORATION

EASTERN DISTRICT

CLAIM NOS.

RECEIVED

NTS: 42-A-5

SEP 25 1979

MINING LANDS SECTION

- 453694 - 453697
- 453734 - 453737
- 479501 - 479502
- 480304 - 480307
- 480314
- 508518 - 508523
- 508700 - 508703
- 516144 - 516151
- 522048
- 522253 - 522255
- 525966 - 525969

ASSESSMENT REPORT

ALLERSTON OPTION

BRISTOL PROJECT, 1979

SEPTEMBER 14, 1979

K.N. HENDRY
R.B. LORTIE

COMINCO LTD.

Exploration

Eastern District

NTS: 42-A-5

ASSESSMENT REPORT

ALLERSTON OPTION

BRISTOL PROJECT

September 14, 1979

K.N. HENDRY
R.B. LORTIE

1. SUMMARY

A combined magnetic and horizontal loop EM survey over the Bristol Property near Timmins, Ontario failed to record significant EM conductors. Magnetic features striking through the property slightly west of north probably are diabase dikes.

2. INTRODUCTION

This report pertains to a combined magnetic and horizontal loop EM survey carried out in Godfrey and Bristol Townships, Timmins area, Ontario by Georex Limited during July and August 1979. Approximately 65 Kilometers of EM and 72 Kilometers of magnetics was measured.

The purpose of the survey was to evaluate the property for base-metal potential.

3. INSTRUMENTS AND PROCEDURES

The magnetic data were obtained with a Geometrics G-816 proton precession magnetometer, measuring total field. Corrections for diurnal were made by standard looping techniques using the baseline stations as base stations. Readings were obtained at 25 metre intervals. Reading accuracy would be ± 1 gamma.

The horizontal loop EM data was collected with an Apex Max Min 11 with a 100-metre coil separation. Readings were obtained at 25-metre intervals with two frequencies measure, 444 hertz and 1777 hertz. Reading accuracy would be better than $\pm 1\%$ on either phase.

4. DATA PRESENTATION

The magnetic data is plotted in plan form and contoured at 50 gamma intervals.

The EM results are plotted in profile form along the appropriate survey line. The inphase and quadrature information are on one map sheet for each frequency. The profile scale is 1 centimeter represents 10%. The small amount of work

Carried out at 150-metre coil spacing was plotted with symbols different from those used for the 100-metre coil spacing data.

The horizontal scale for all sheets is 1:2500.

5. GEOLOGY

Archean volcanic rocks in north Bristol Township form the margin of the major felsic volcanic eruptive complex centred on the townships of Godfrey and Turnbull and extending into Robb and Jamieson townships. The Allerston claims under option to Cominco cover a thick succession of rhyolitic volcanic rocks including: massive, cherty quartz-eye porphyry; pyroclastic breccias and coarse lapillistones; crystal tuffs; and lapilli tuffs. Banded cherts are locally interbedded with cherty rhyolites and lapilli tuffs. Shear fractures in the volcanic strata strike 065° - 090° , and are sensibly parallel to primary bedding. South of McDonnell Lake, the felsic volcanics are strongly sheared and altered (sericite-carbonate). Only very minor occurrences of (iron) sulphides have been found on the property.

South of Godfrey Lake, the volcanic strata are intruded by a body of fine-grained dacitic-to-andesitic quartz-feldspar porphyry. Matachewan-type diabase dikes, striking north-northwest, cut all other rock types.

R.B.L

6. DISCUSSION OF RESULTS

The horizontal loop EM survey was completely lacking in significant base metal-type of anomalies. The response was seldom different than normal background variation. The larger coil separation was attempted on lines 8E and 9E south of the baseline based on a quadrature response with the 100 metre coil separation survey. Essentially no inphase response was noted at either coil separation.

The lack of response is not due to insufficient depth penetration as out-crop is found and magnetic depth estimates of bedrock surface suggest less than 20 metres of overburden in most areas.

The magnetic survey located several narrow diabase dikes trending slightly west of north. These features are: 1/ just west of Godfrey Lake, 2/ along lines 7+00 E, 10+00 E, and 11+00 E, east of McDonnell Lake and, 3/ along lines 30+00 E and 31+00 E. The dikes extend beyond the property as can be seen on aeromagnetic map 42-A-5h and Ontario Compilation Preliminary series #639.

The area is located within felsic volcanics which appear, between the dikes to be magnetically featureless. Intermediate intrusives are found south of Godfrey lake on lines 11W, 12W, between 14+00 N and 16+00 N.

7. CONCLUSIONS

The lack of EM conductors on this property suggests that within the depth penetration of the instruments used, metallic sulphides would not be found in significant quantities.

Submitted By: *K.N. Hendry*

K.N. HENDRY
Geophysicist, Exploration
Eastern District

Submitted By: *R.B. Lortie*

R.B. LORTIE
Geologist, Exploration
Eastern District

KNH/bw

Distribution:

- Vancouver (1)
- Toronto (1)
- Geophysics (1)
- Government (1)

GEOPHYSICAL - GEOLC
TECHNICAL DA



42A05NE0011 2.3045 GODFREY

900

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 HORIZONTAL LOOP EM, MAGNETOMETER
Township or Area GODFREY, BRISTOL TWSP
Claim holder(s) COMINCO LIMITED
Author of Report K.N. HENDRY/R.B. LORTIE
Address C/O COMINCO LTD. Suite 1700, 120 Adelaide St. W.
Covering Dates of Survey JUNE 25 to August 30, 1979
(linecutting to office)
Total Miles of Line cut 72 Km/44.6 miles.

MINING CLAIMS TRAVERSED
List numerically

P..... 453694-453697
(prefix) (number)
P..... 453734-453737
..... 479501-479502
..... 480304-480307
..... 480314
..... 508518-508523
..... 508700-508703
..... 516144-516151
..... 522048
..... 522253-522255
..... 525966-525969

If space insufficient, attach list

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	<u>40</u>
-Magnetometer	<u>20</u>
-Radiometric	_____
-Other	_____
Geological	_____
Geochemical	_____

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

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

DATE: September 21/79 SIGNATURE: K.N. Hendry
Author of Report

PROJECTS SECTION

Res. Geol. _____ Qualifications 63.2734+
L.D. on this file

Checked by _____ date _____

GEOLOGICAL BRANCH _____

Approved by _____ date _____

GEOLOGICAL BRANCH _____

Approved by _____ date _____

TOTAL CLAIMS 40

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations 288 Number of Readings 288/SURVEY
Station interval 25 metres
Line spacing 100 metres
Profile scale or Contour intervals _____
(specify for each type of survey)

MAGNETIC

Instrument Geometrics G-816 Proton Precession
Accuracy - Scale constant ± 1 gamma
Diurnal correction method looping
Base station location Base line stations

ELECTROMAGNETIC

Instrument Apex Max Min 11
Coil configuration Horizontal loop
Coil separation 100m (150m)
Accuracy ± 1%
Method: Fixed transmitter Shoot back In line Parallel line
Frequency 444 Hz 1777 Hz
(specify V.L.F. station)
Parameters measured Inphase Quadrature

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 _____

Enclosure Slip



To MR. E.F. ANDERSON, DIRECTOR
LAND MANAGEMENT BRANCH

RECEIVED

MAR 25 1980

Please Note	Sign	Approve	Comment	MINING LANDS SECTION		
				For Discussion	Or Necessary Action	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			Return	Forward	Retain	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Remarks

Enclosed, you will find the Geophysical (EM and Mag) Surveys Mining Claims P.453694 et al. Bristol and Godfrey Townships 2.3045. All the claims have been signed by K.N. HENDRY.

From B. Walters

Date March 24, 1980

210-1510

Jamieson Twp. (M.288)

Gap Radar S10
Dept of National Defence
Withdrawn from Staking
Sec. 34(1) of Mining Act. File 16905

THE TOWNSHIP OF
OF
GODFREY

DISTRICT OF
COCHRANE

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.
PATENTED S.R.O.	Ⓟ

NOTES

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

Flooding rights on either side of the Mattagami to H.E.P.C.

This township lies within the Municipality of CITY of TIMMINS.

Reservations:
 (R) - Reserved for recreational purposes under Sec. 3 P.L.A. File 188543.

DATE OF ISSUE
 SEP 25 1979
 SURVEYS AND MAPPING
 BRANCH

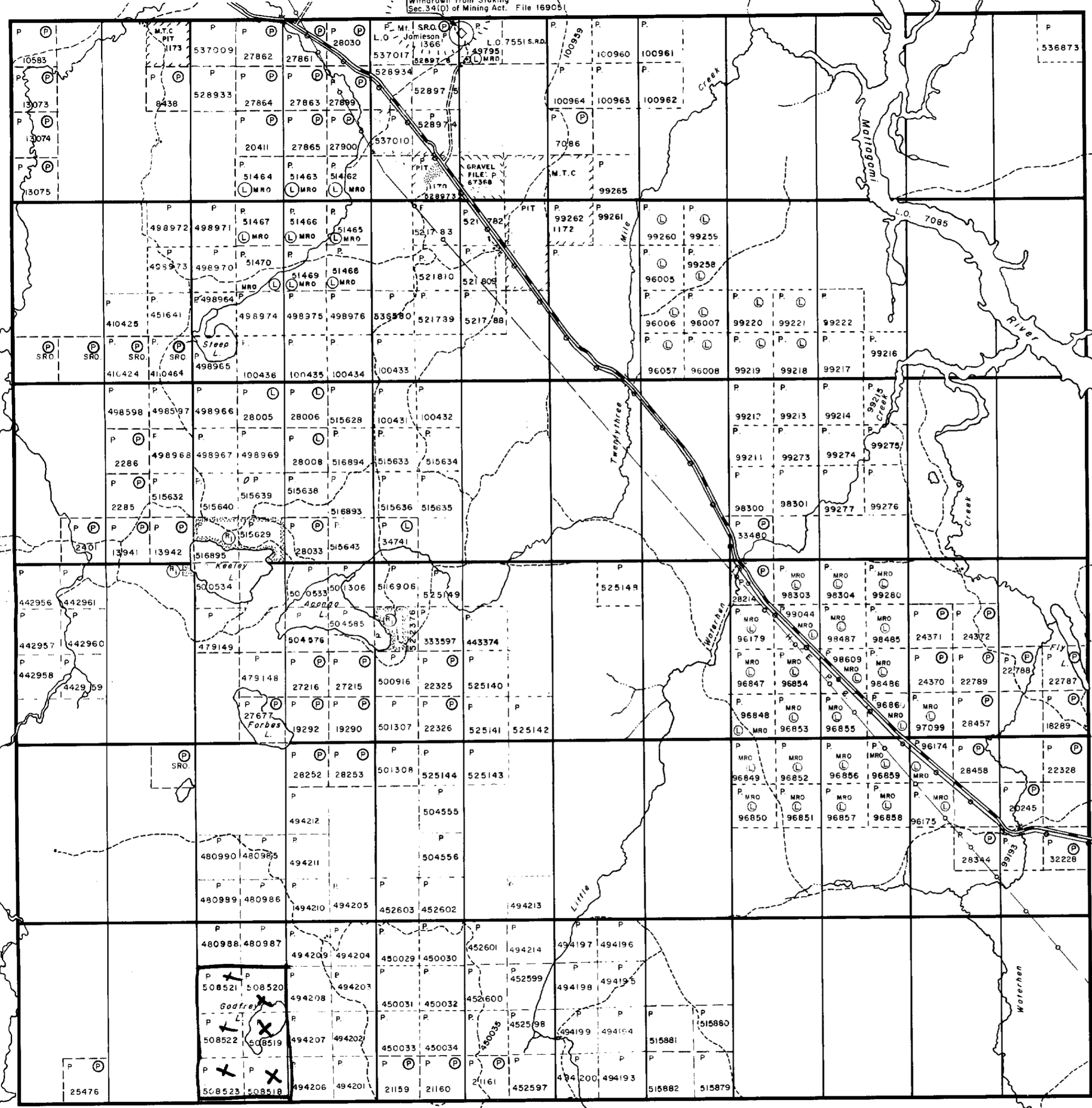
PLAN NO. **M.284**

ONTARIO
 MINISTRY OF NATURAL RESOURCES
 SURVEYS AND MAPPING BRANCH

Turnbull Twp. (M.316)

Mountjoy Twp. (M.302)

VI
 V
 IV
 III
 II
 I



12 11 10 9 8 7 6 5 4 3 2 1

Bristol Twp. (M.264)



Godfrey Twp. - M.284

THE TOWNSHIP OF
OF
BRISTOL

DISTRICT OF
COCHRANE

PORCUPINE
MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

DISPOSITION OF CROWN LANDS

- PATENT, SURFACE AND MINING RIGHTS ●
 - " , SURFACE RIGHTS ONLY ○
 - " , MINING RIGHTS ONLY ◐
 - LEASE, SURFACE AND MINING RIGHTS ■
 - " , SURFACE RIGHTS ONLY ◑
 - " , MINING RIGHTS ONLY ◒
 - LICENCE OF OCCUPATION ▼
-
- ROADS
 - IMPROVED ROADS
 - KING'S HIGHWAYS
 - RAILWAYS
 - POWER LINES
 - MARSH OR MUSKEG
 - MINES
 - CANCELLED

NOTES

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

Areas withdrawn from staking under Section 43 of the Mining Act (R.S.O. 1970).

Order No. File	Date	Disposition
① 164584		Surface Rights Only

DATE OF ISSUE
SEP 25 1979
SURVEYS AND MAPPING
BRANCH

This township lies within the Municipality of the CITY of TIMMINS.

PLAN NO. **M-264**

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

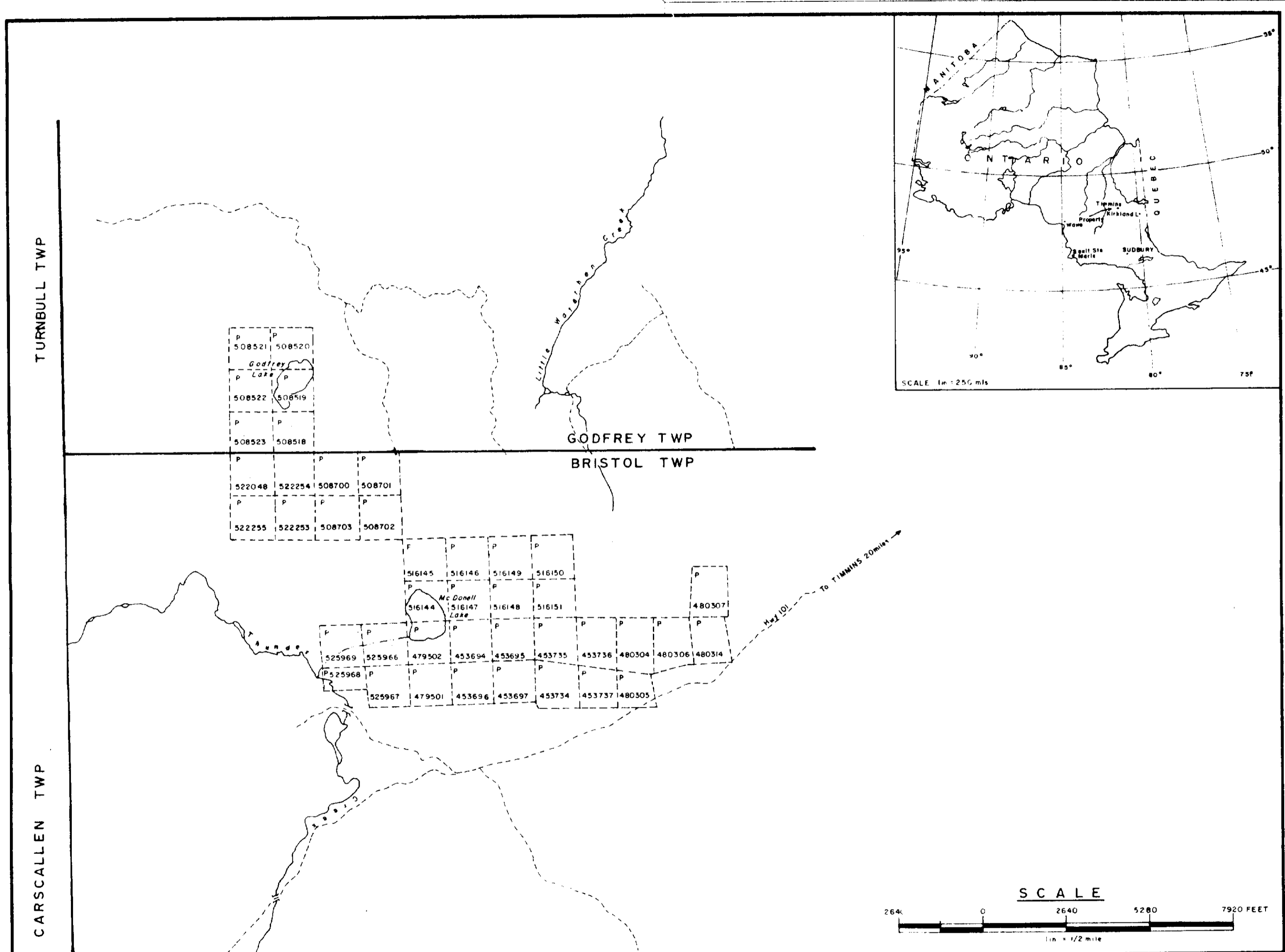
Carscallen Twp. - M.267

Ogden Twp. - M.305

Thorneloe Twp. - M.313



42A05NE011 2.3045 GODFREY



TURNBULL TWP

CARSCALLEN TWP

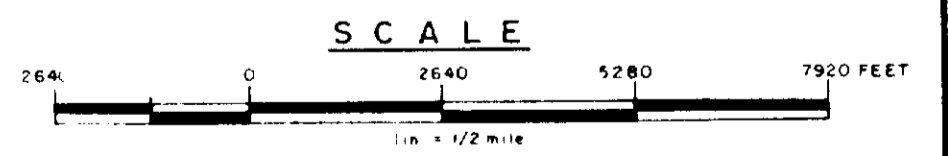
GODFREY TWP
BRISTOL TWP

P	P
508521	508520
Godfrey Lake	
P	P
508522	508519
P	P
508523	508518


P	P	P	P
522048	522254	508700	508701
P	P	P	P
522255	522253	508703	508702

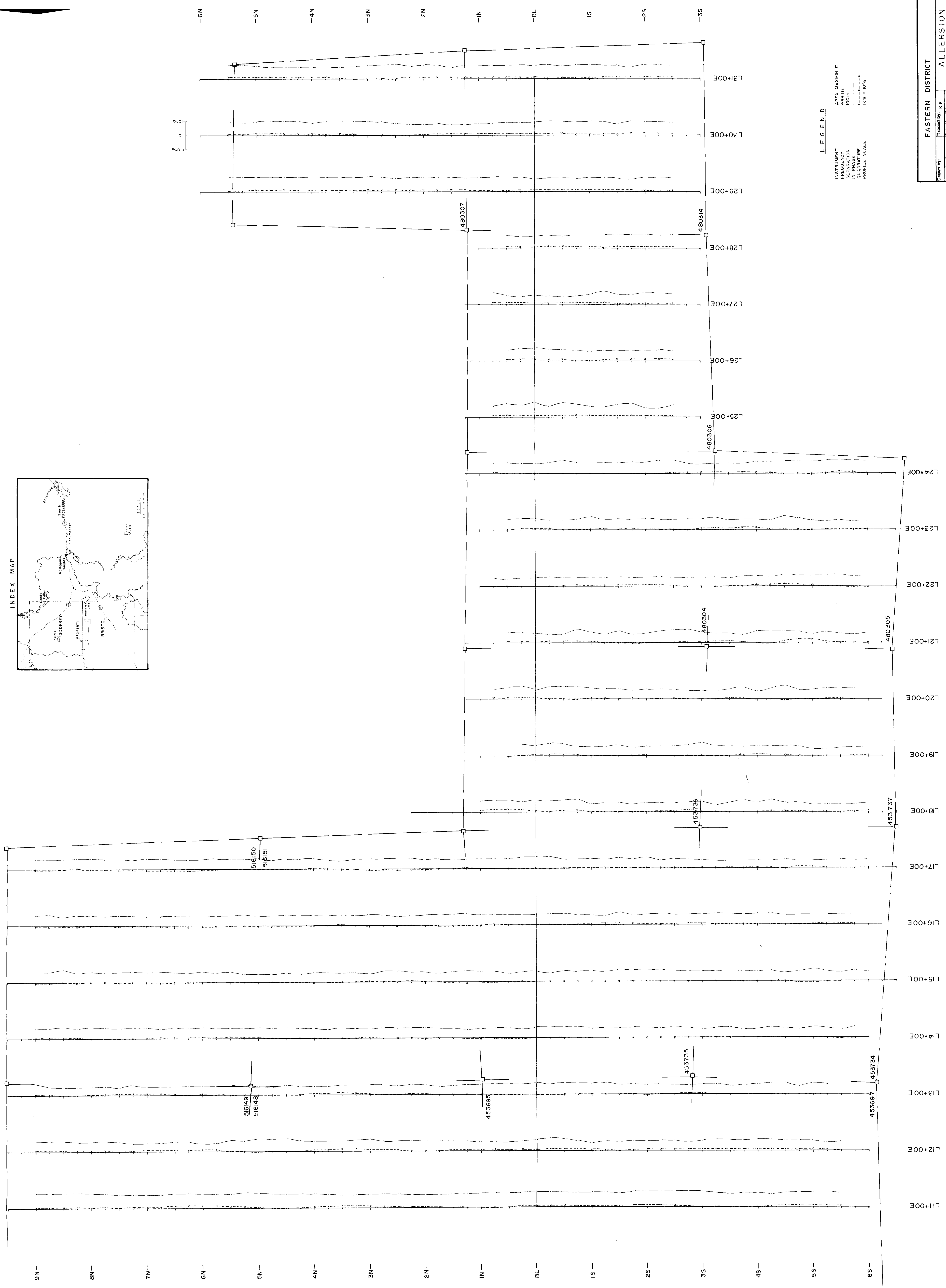
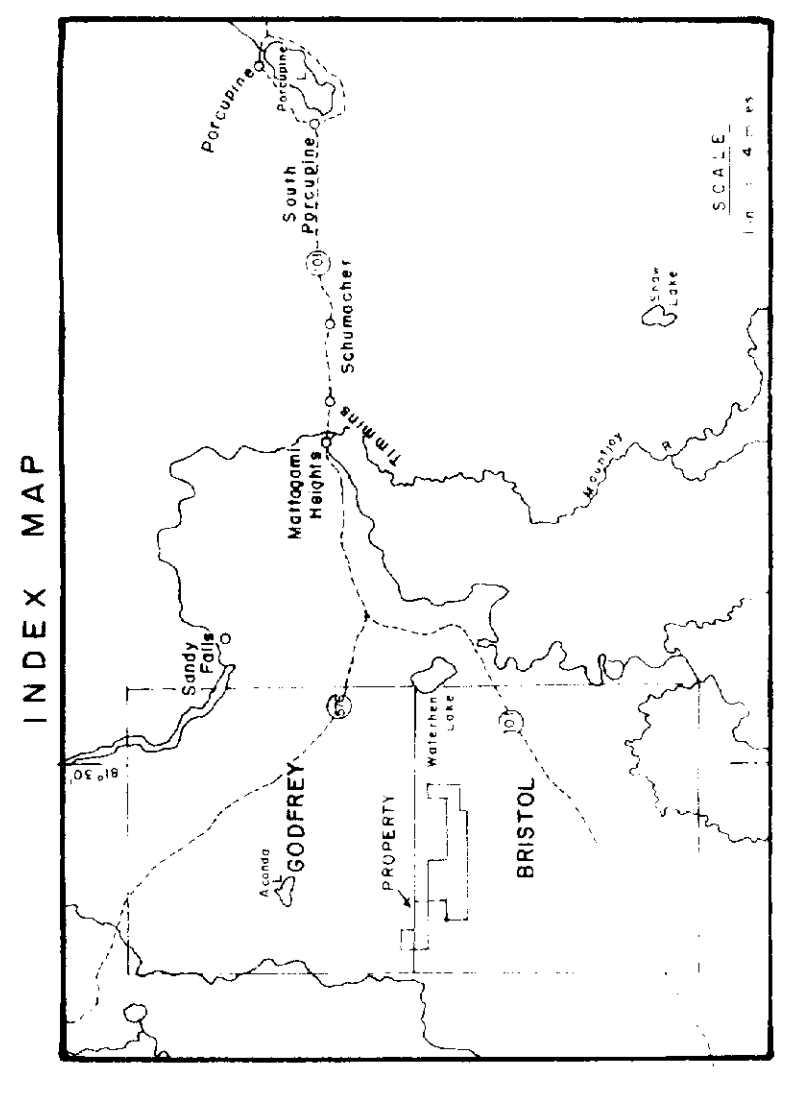
F	P	P	P	P	P				
516145	516146	516149	516150						
P	P	P	P	P	P				
516144	516147	516148	516151		480307				
P	P	P	P	P	P				
525969	525966	479502	453694	453695	453735	453736	480304	480306	480314
P	P	P	P	P	P	P	P	P	P
525968									
P	P	P	P	P	P	P	P	P	P
525967	479501	453696	453697	453734	453737	480305			

Hwy 101 To TIMMINS 20miles →



220

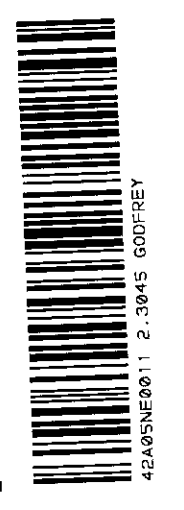
EASTERN DISTRICT					
Drawn by: K. B		Traced by:		BRISTOL CLAIM MAP	
Revised by	Date	Revised by	Date		
				ONTARIO	
Scale: 1 inch = 2640 feet		Date: July 1979		NTS 42-A-5	
				Plate: 1	

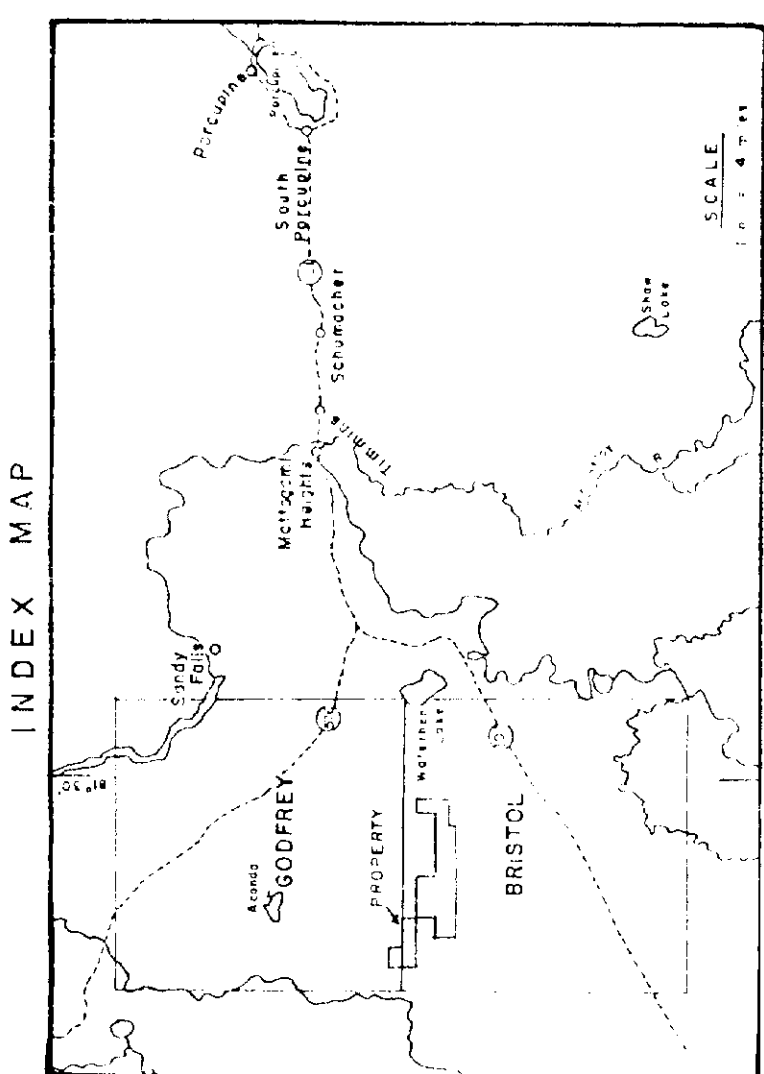
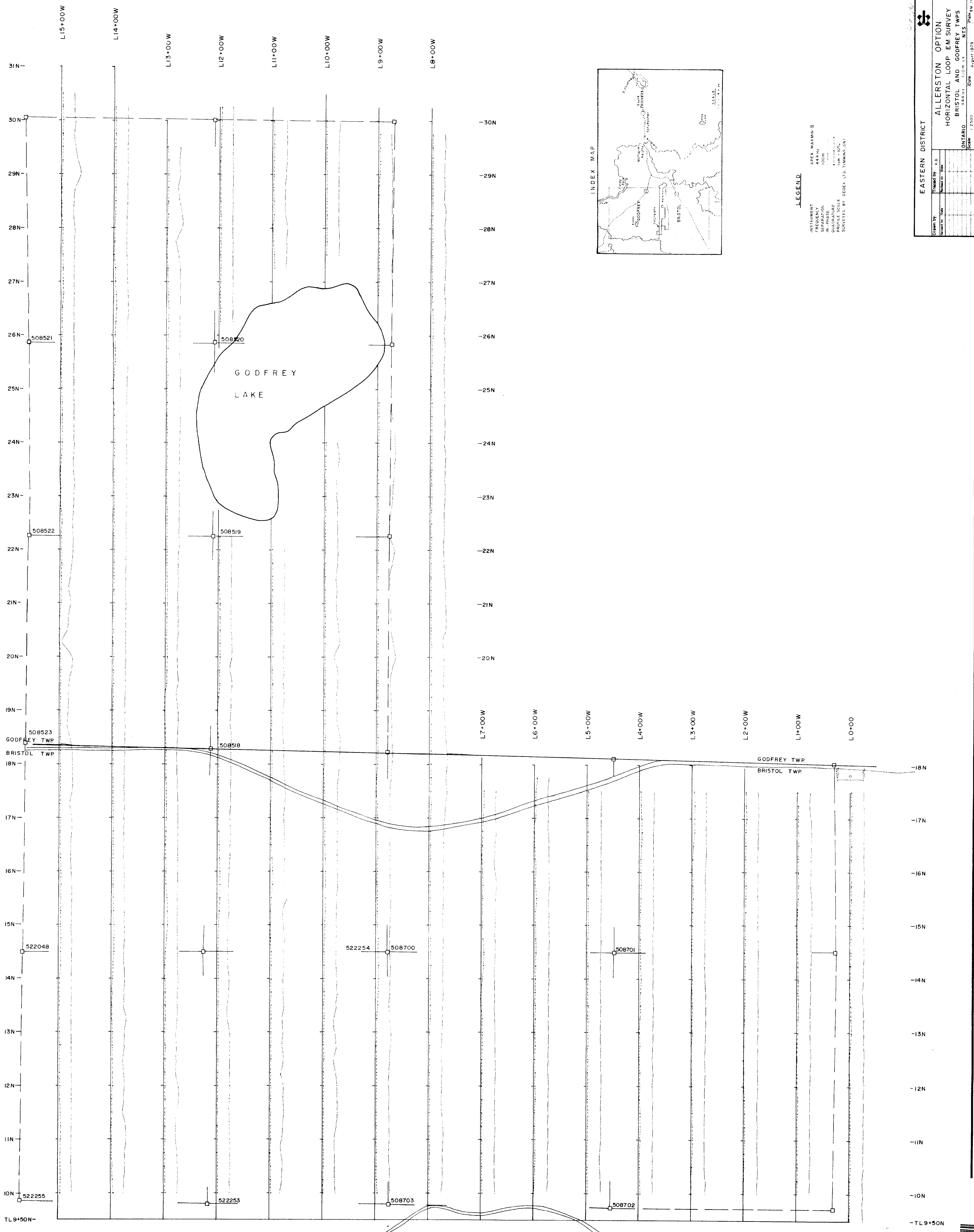


10%
0
-10%

LEGEND
INSTRUMENT APEX MAXIM II
FREQUENCY 444 Hz
WAVELENGTH 67.5 m
IN-PHASE
QUADRATURE
PROFILE SCALE 1 cm = 10%

EASTERN DISTRICT	
ALLERSTON OPTION	
HORIZONTAL LOOP EM SURVEY	
BRISTOL AND GODFREY T.WPS.	
ONTARIO 444 Hz - 100 m G.S. NIS	
Date: August 1979	Plate: EM-79-2
Scale: 1:2500	
Drawn by: K.B.	Checked by: J.B.
Surveyed by: J.B.	Reviewed by: J.B.





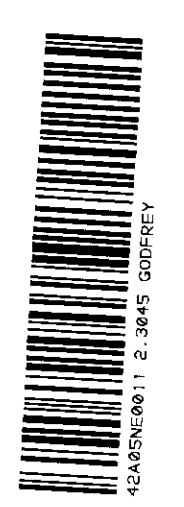
LEGEND
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 FREQUENCY: 444 Hz
 REFRACTION: 100m
 QUADRATURE: 100m
 PROFILE SCALE: 1cm = 10m
 SURVEYED BY: GEOFF L.D. THOMAS, ONT

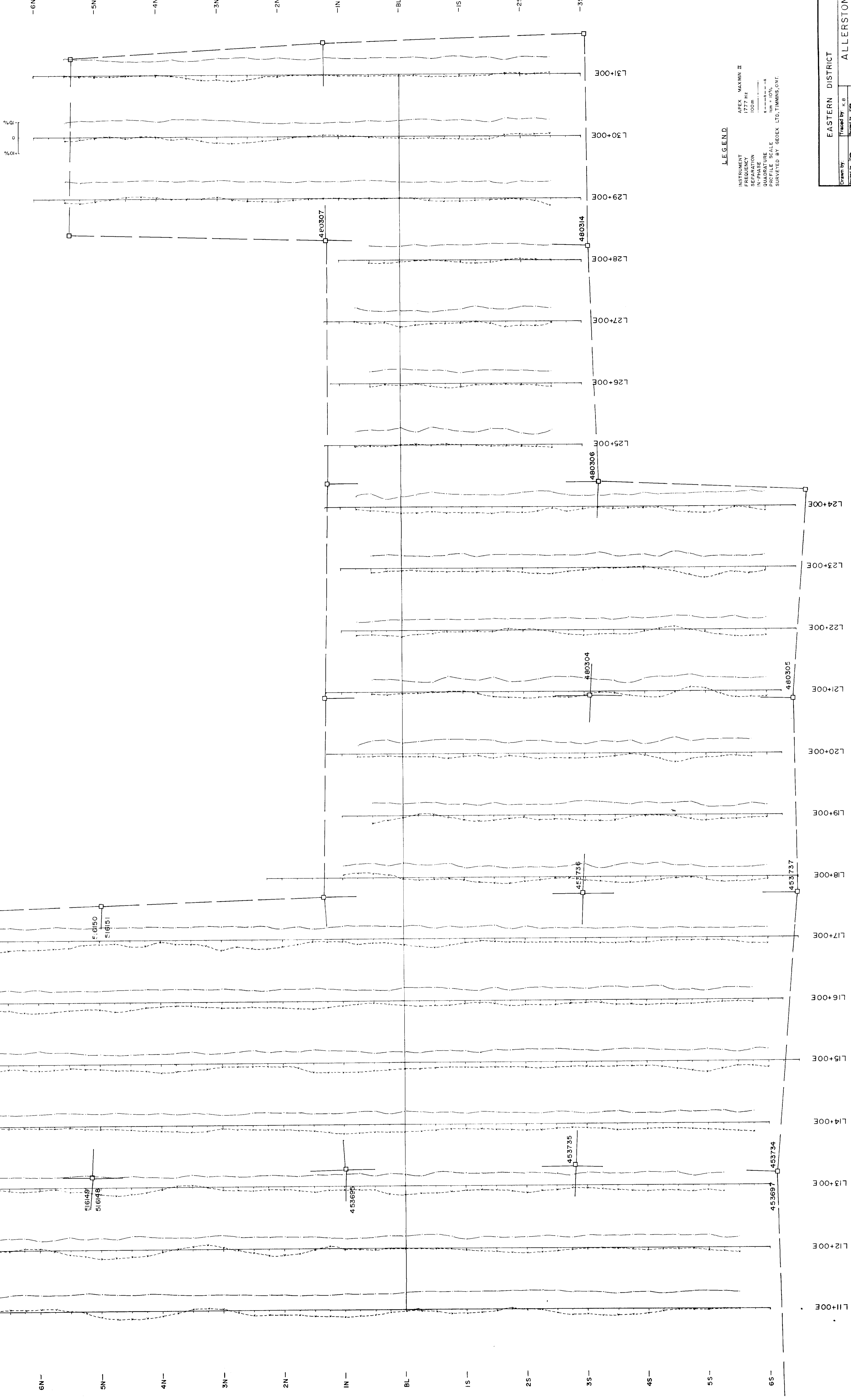
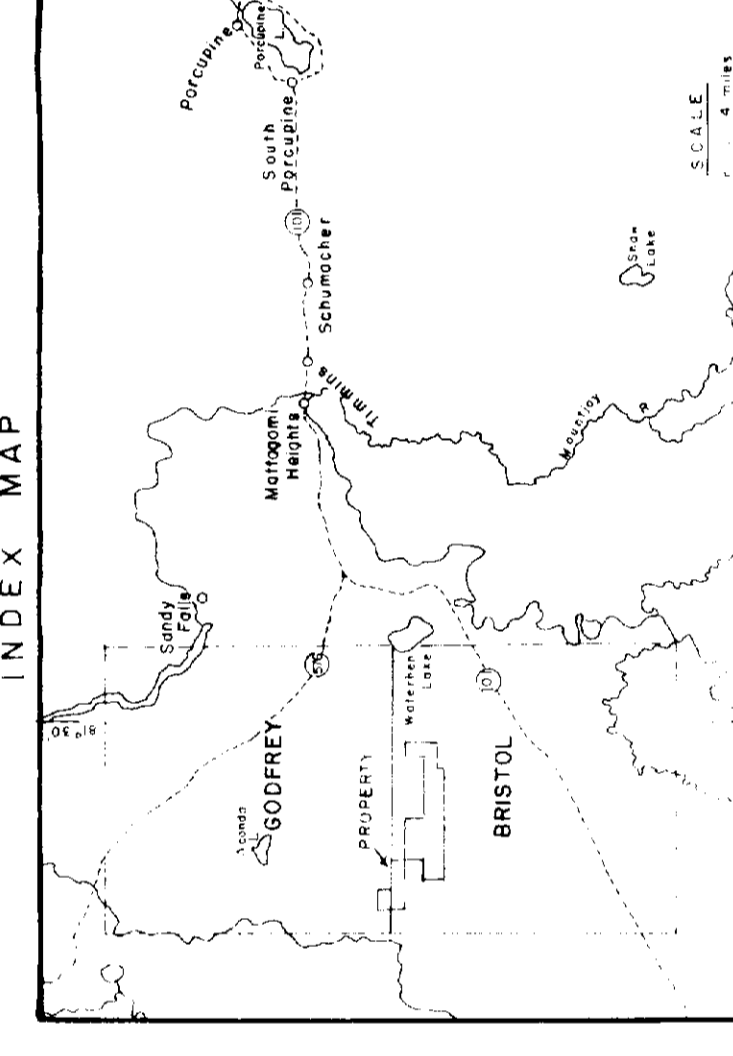
EASTERN DISTRICT

ALLERSTON OPTION
HORIZONTAL LOOP EM SURVEY
BRISTOL AND GODFREY TOWNSHIPS

ONTARIO 444 Hz. P.O.M. N.T.S.
 Scale: 1:2500 Date: August 1978 Page No. 79-4

Drawn by	K.B.
Checked by	...
...	...





LEGEND

INSTRUMENT: APX, MAXIM II
 DATE: 1777 Hz
 SEPARATION: 100m
 IN-PHASE: 100m
 PROFILE SCALE: 1:10%
 SURVEYED BY: REDEX LTD, TIMMINS, ONT.

EASTERN DISTRICT

ALLERSTON OPTION

HORIZONTAL LOOP EM SURVEY

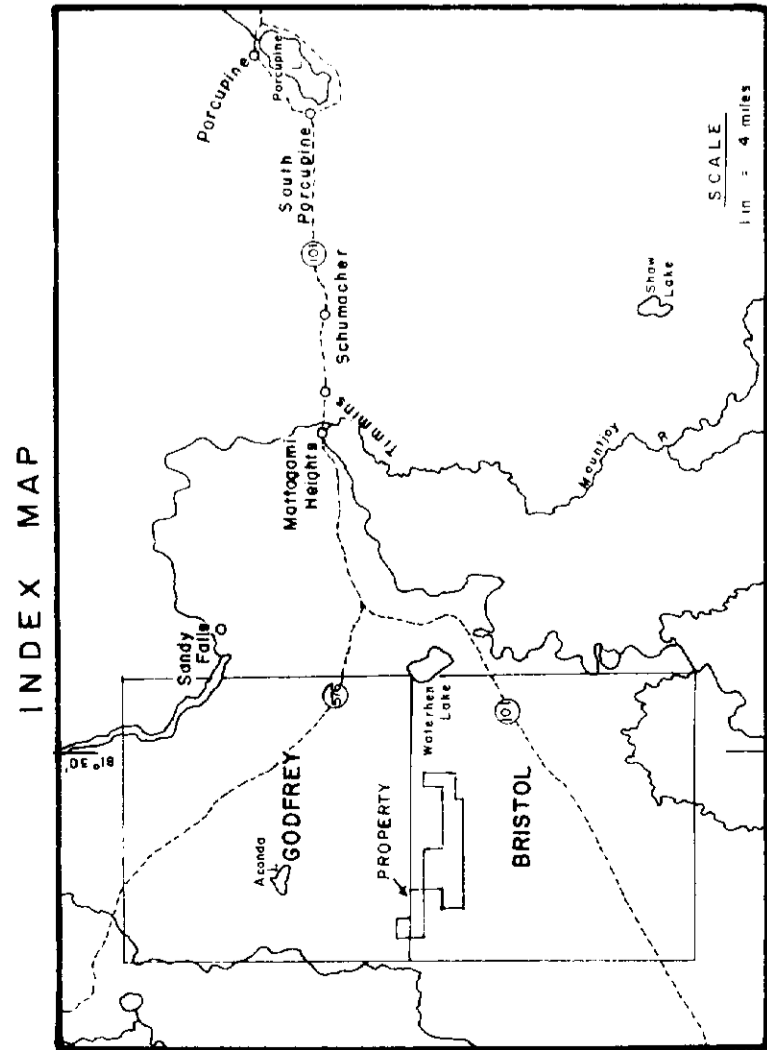
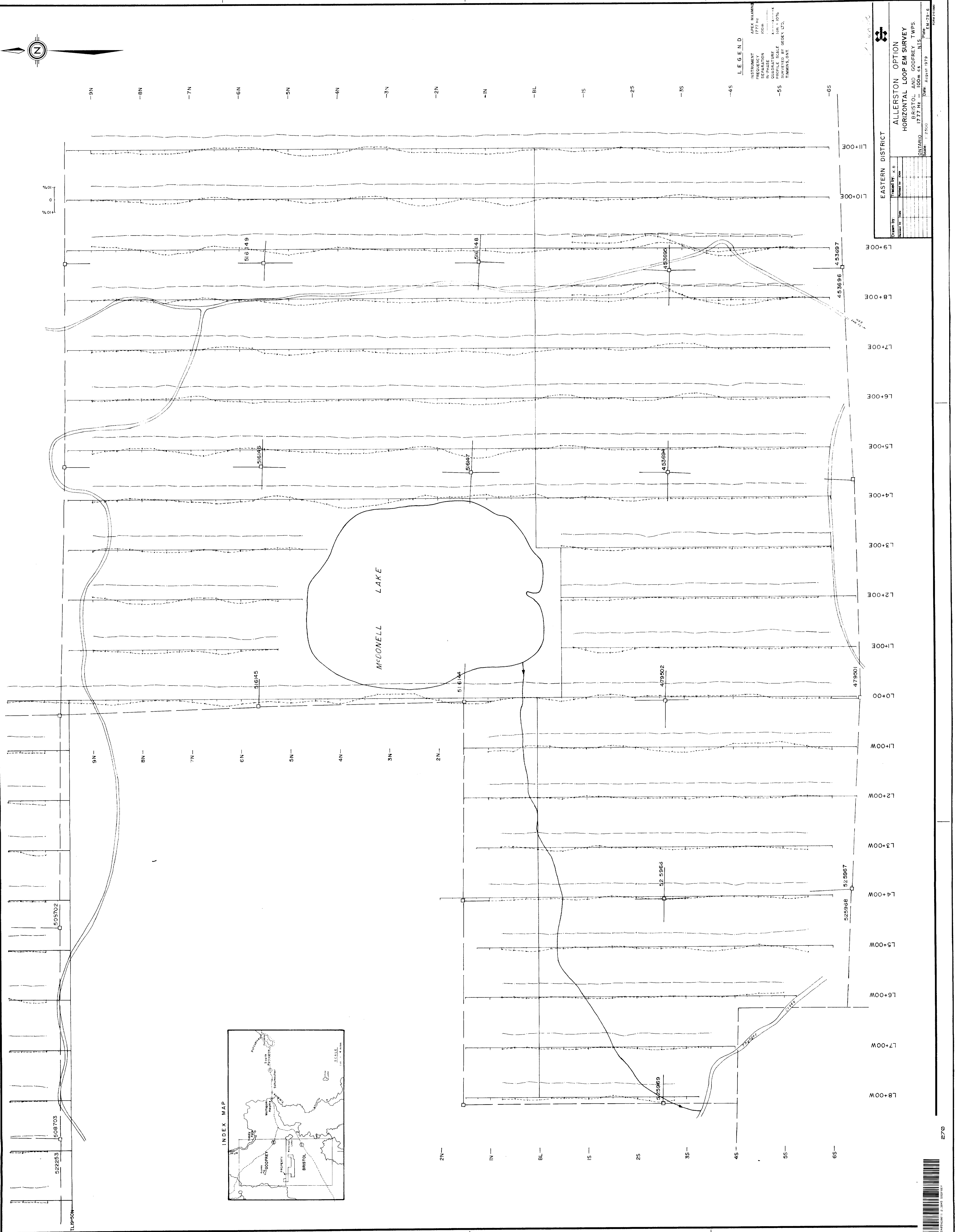
BRISTOL AND GODFREY T.WPS.

ONTARIO 1777 Hz - 100m c.s. N.T.S.

Scale: 1:2500 Date: August 1979 Page: EM-79-5

Drawn by: K.G.
 Checked by: J.S.
 Date: 1979



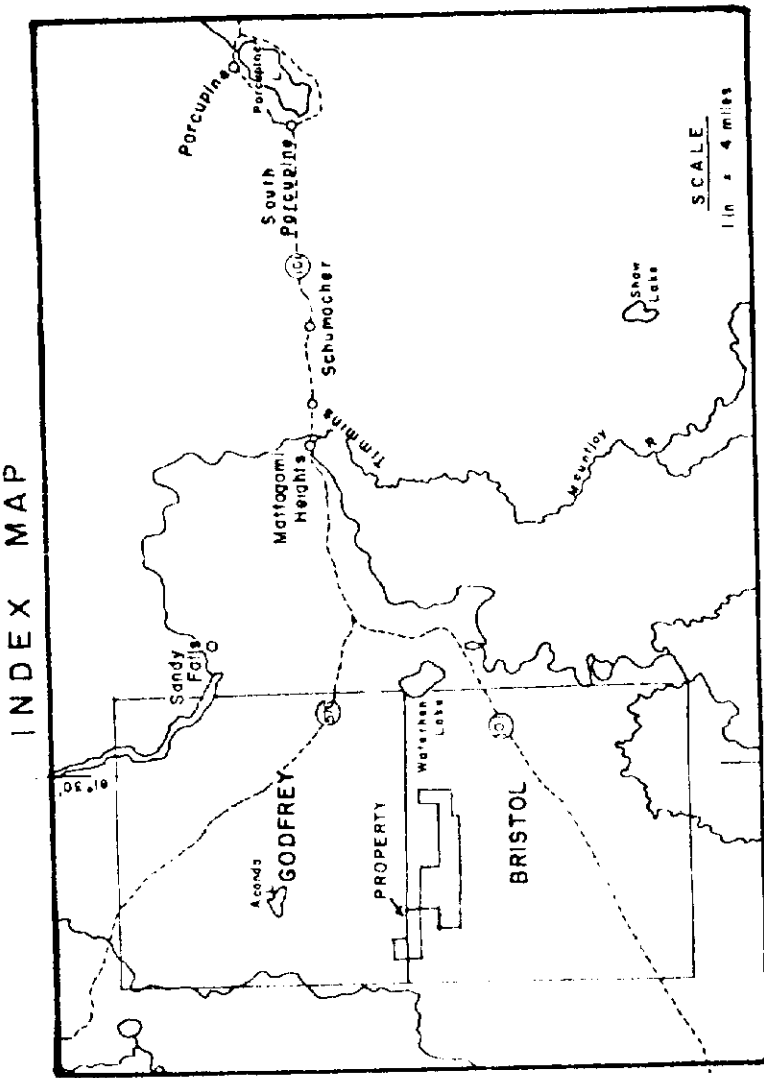
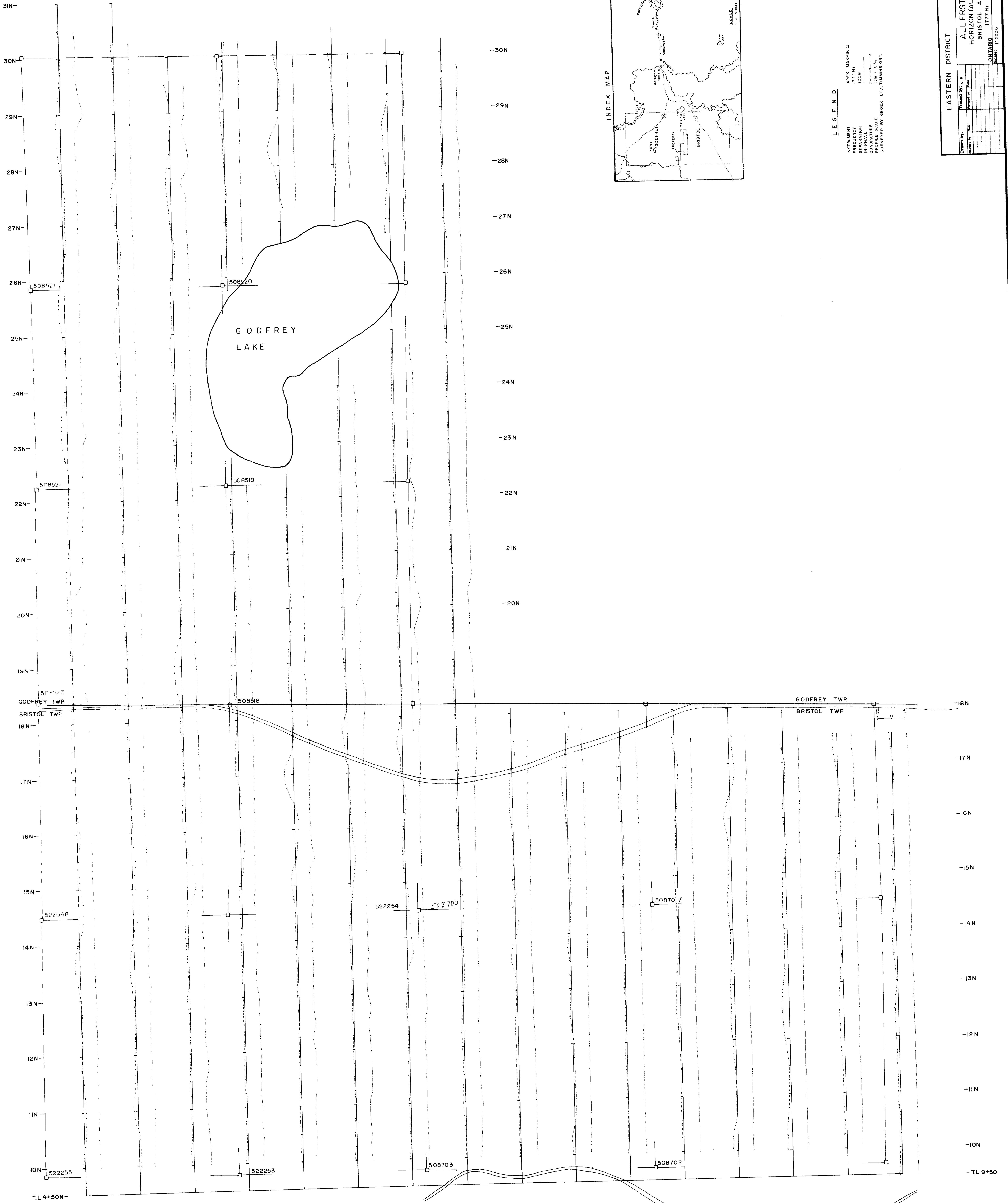


LEGEND

INSTRUMENT APOLY MARKING
 FREQUENCY 1777 Hz
 SEPARATION 100m
 QUADRATURE
 PROFILE SCALE 1cm = 10m
 TIMING UNIT SECS. (1/2)
 TUNING UNIT

Drawn By: K.B.	Checked By: K.B.
Date: 1979	Date: August 1979
EASTERN DISTRICT	
ALLERSTON OPTION	
HORIZONTAL LOOP EM SURVEY	
BRISTOL AND GODFREY TWP'S	
ONTARIO 1777 Hz 100m	
Scale: 1:2500	Date: August 1979
Plate: EM-79-35	Page: 270

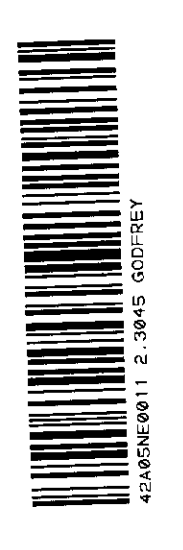


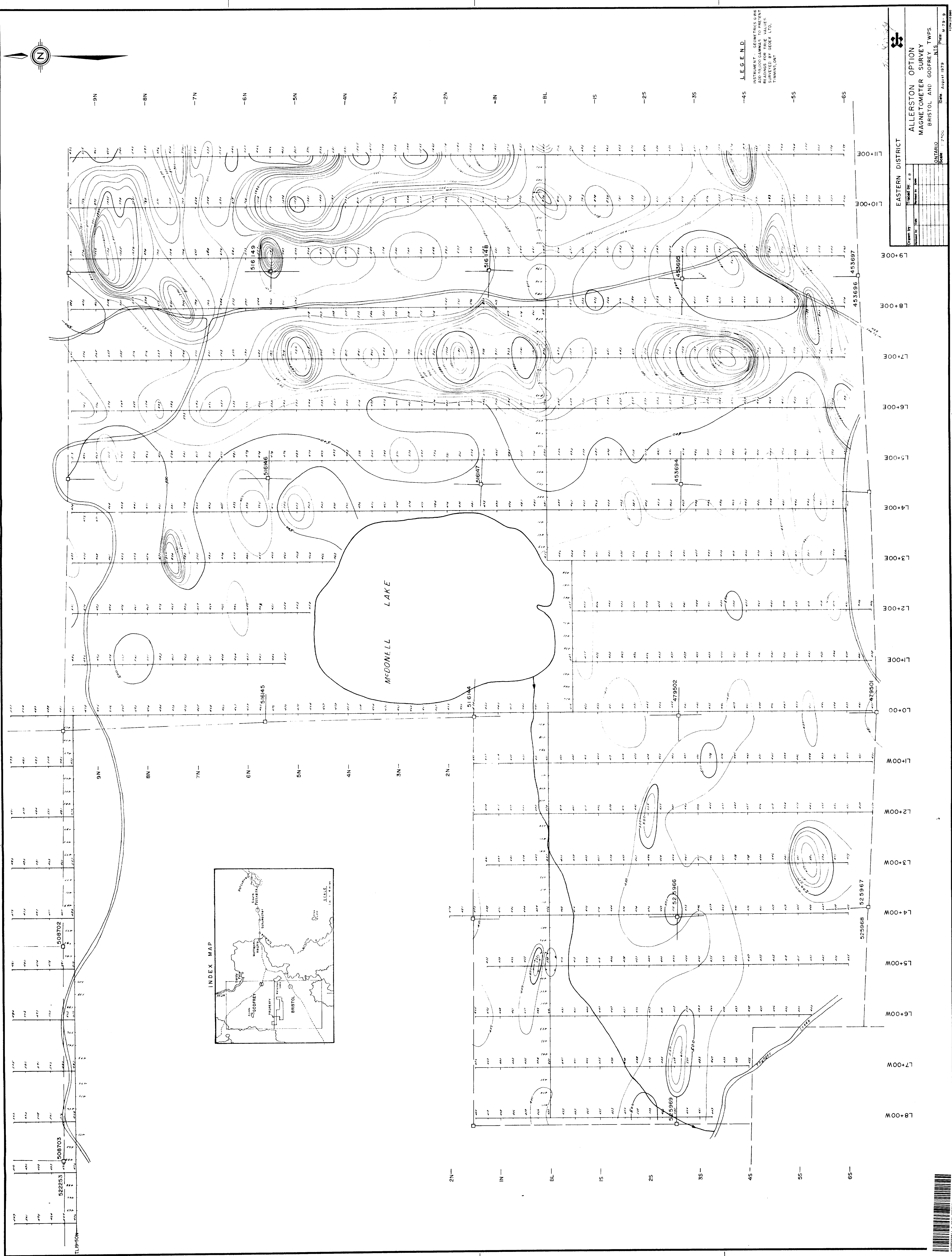


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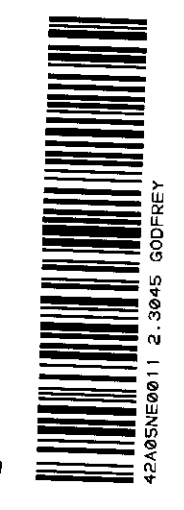
INSTRUMENT: APEX MAXMIN II
 FREQUENCY: 1777 Hz
 IN-PHASE: 100m
 QUADRATURE: 100m
 SURVEYED BY: GEORGE LTD. THIMINS, ONT.

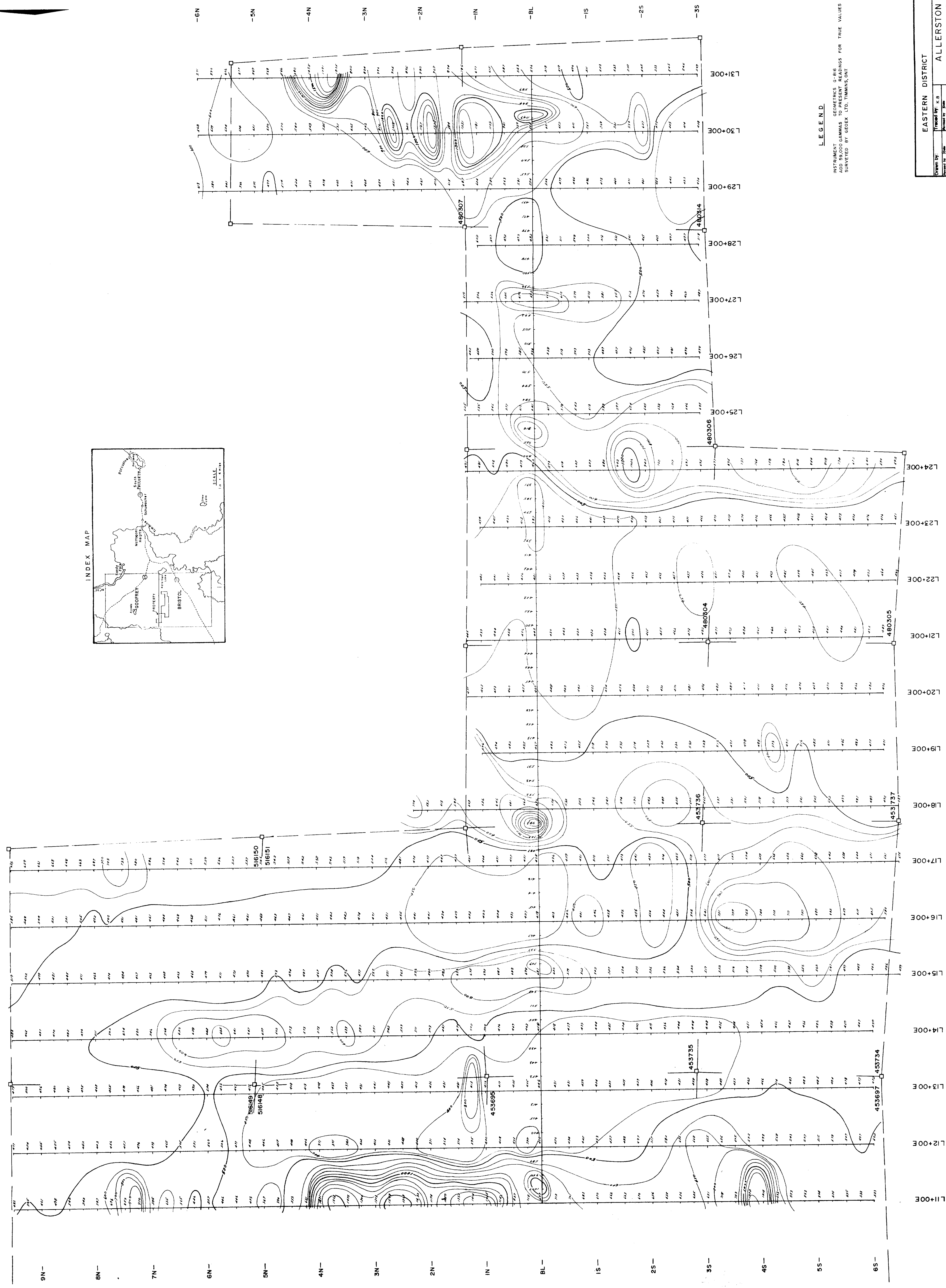
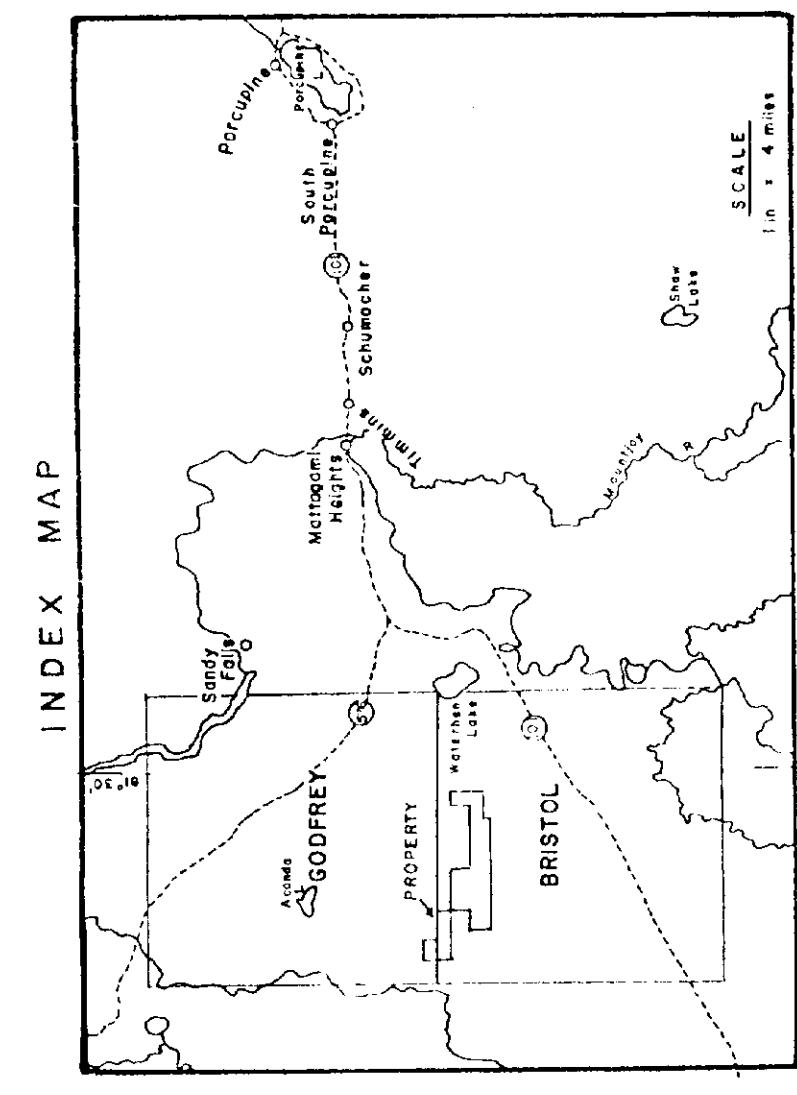
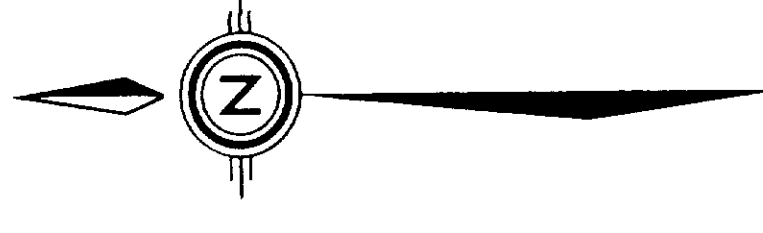
EASTERN DISTRICT	
ALLERSTON OPTION	
HORIZONTAL LOOP EM SURVEY	
BRISTOL AND GODFREY TOWNSHIPS	
ONTARIO 1777 Hz - 100m c/s NTS	
Scale: 1:2500	Date: August 1978
Drawn By: K.B.	Plate: EM-79-7
Checked By: []	Form: 02/000





EASTERN DISTRICT	
Survey No.	12400
Traced By	J. B. G.
Checked By	J. B. G.
Scale	1" = 100'
Date	August 1979
Plate	M-79-9
ALLERTON OPTION MAGNETOMETER SURVEY BRISTOL AND GODFREY TOWNSHIPS ONTARIO	



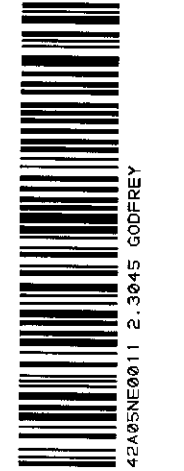


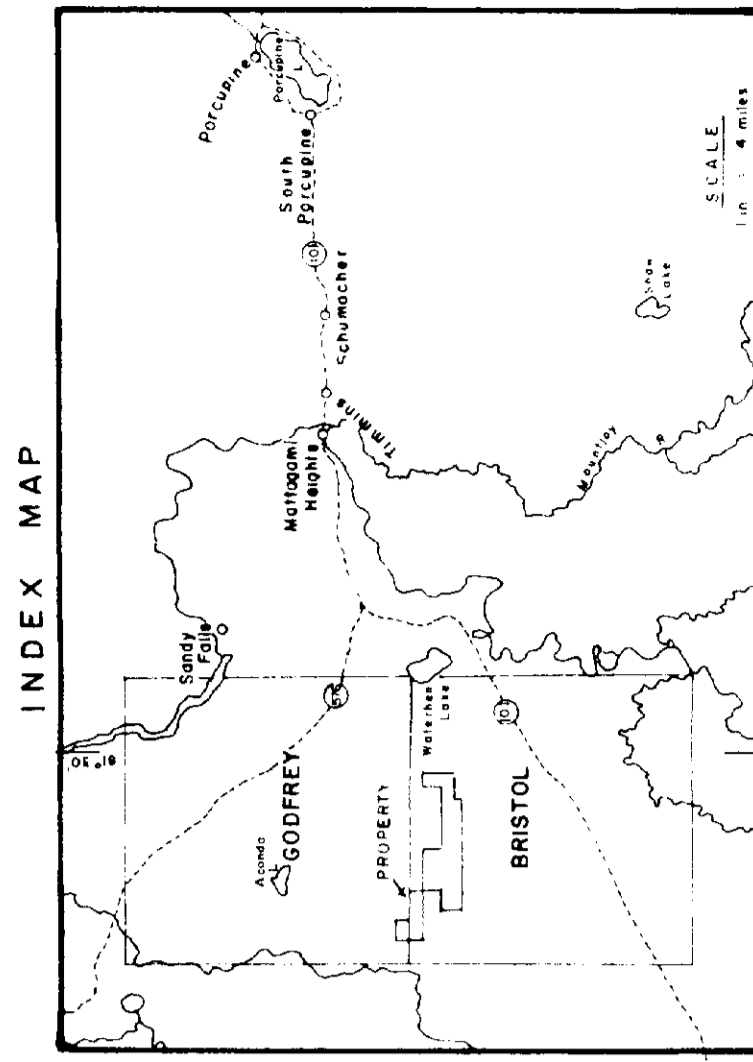
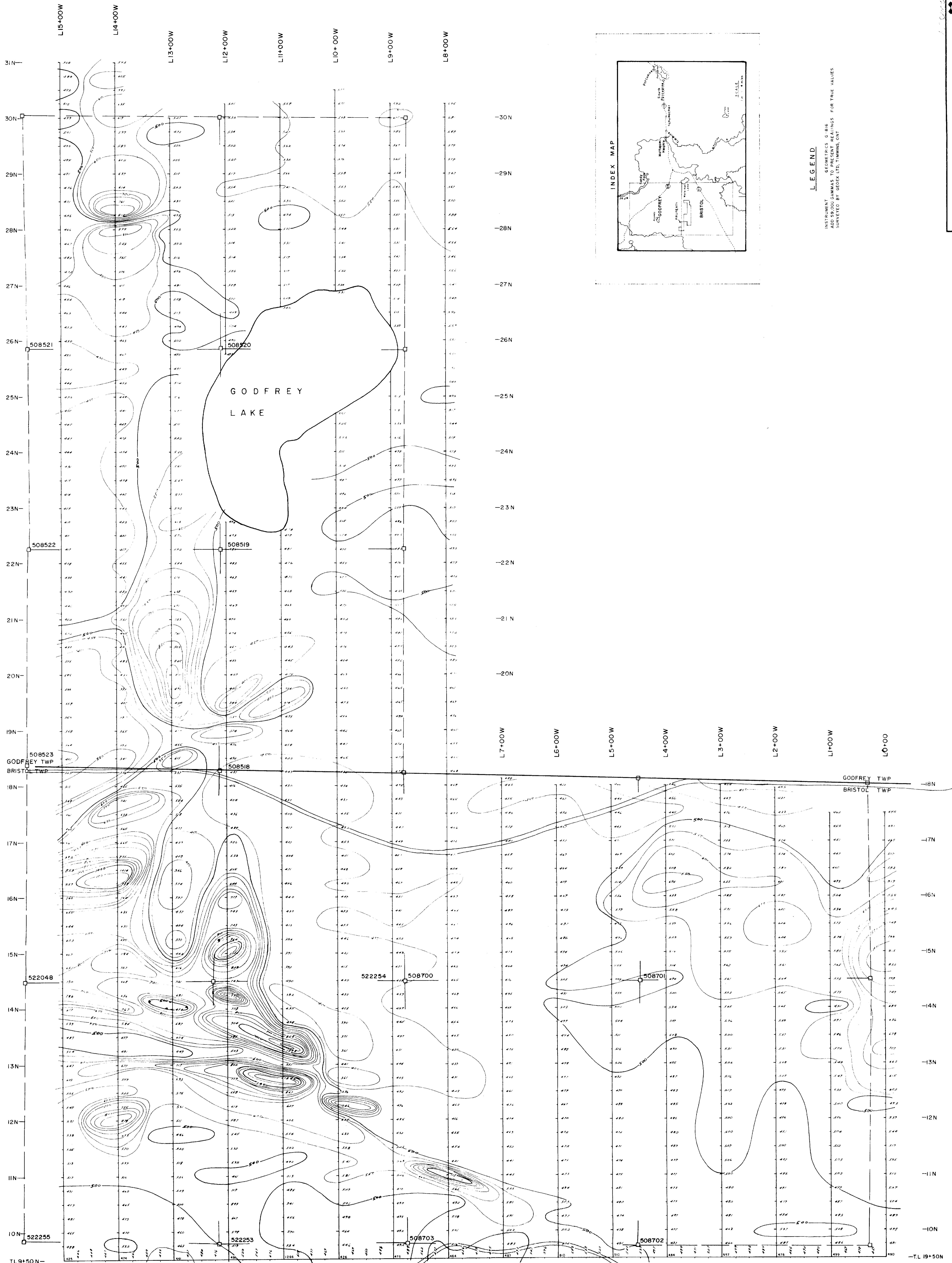
LEGEND
 INSTRUMENT GEOMETRICS 0-816
 ADD 58,000 GAMMAS TO PRESENT READINGS FOR TRUE VALUES
 SURVEYED BY GEOX LTD, TIMMINOON

EASTERN DISTRICT

ALLERSTON OPTION
MAGNETOMETER SURVEY
BRISTOL AND GODFREY T.W.P.S.

Drawn by: []
 Checked by: []
 Date: August 1979
 Scale: 1:2500
 File: M-79-8
 Form 10-80





LEGEND

INSTRUMENT: GEOMETER 6.816
 ADD 99.000 GAMMAS TO PRESENT READINGS FOR TRUE VALUES
 SURVEYED BY: GEDEX LTD, TIMMINS, ONT

EASTERN DISTRICT

ALLERSTON OPTION
 MAGNETOMETER SURVEY
 BRISTOL AND GODFREY TOWNSHIPS

ONTARIO
 AUGUST 1979
 M 79-10
 FORM 12 (REV)

