



31M05NE0002 2.13424 BUCKE

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2.13424

REPORT ON
GEOPHYSICAL WORK
ON
BUCKE 53
BUCKE TOWNSHIP
FOR
FALCONBRIDGE LIMITED

NTS: 31-M/5

PROJ # 8164

NOVEMBER 1989

S. TAYLOR
TIMMINS GEOPHYSICS LTD.

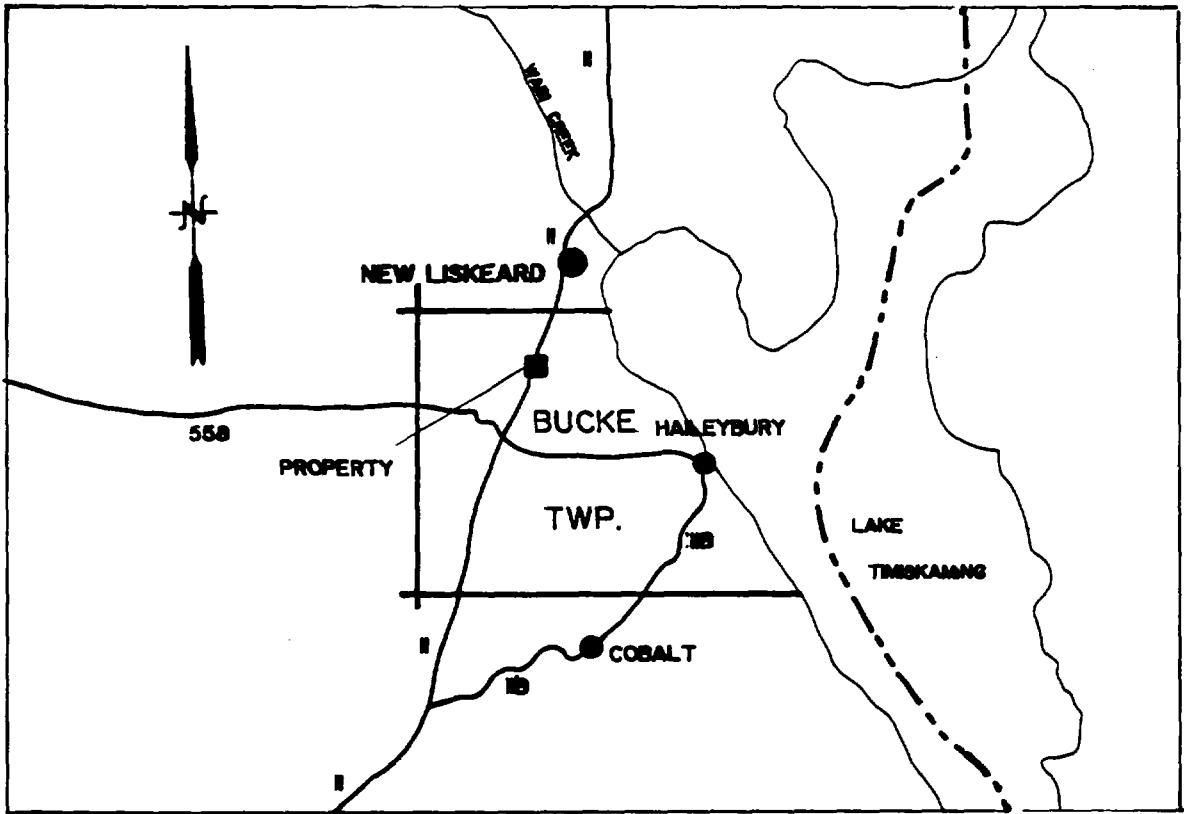
REGIONAL GEOLOGY

The property lies within the Huronian Supergroup package of rocks (Card and Lumbers, 1974-75). The regional geology is dominated by sediments of the Huronian Supergroup consisting primarily of Gowganda Formation rocks. The Gowganda Formation conglomerate/tillite is most abundant with minor sandstone, siltstone, argillite and limestone present. Bucke Township also has Middle Precambrian (Nipissing) diabase dykes and sills along with windows of Precambrian iron formation.

Structurally the region is transected by NW-SE and NE-SW faults associated with the Timiskaming Rift Valley system and the Grenville Front respectively.

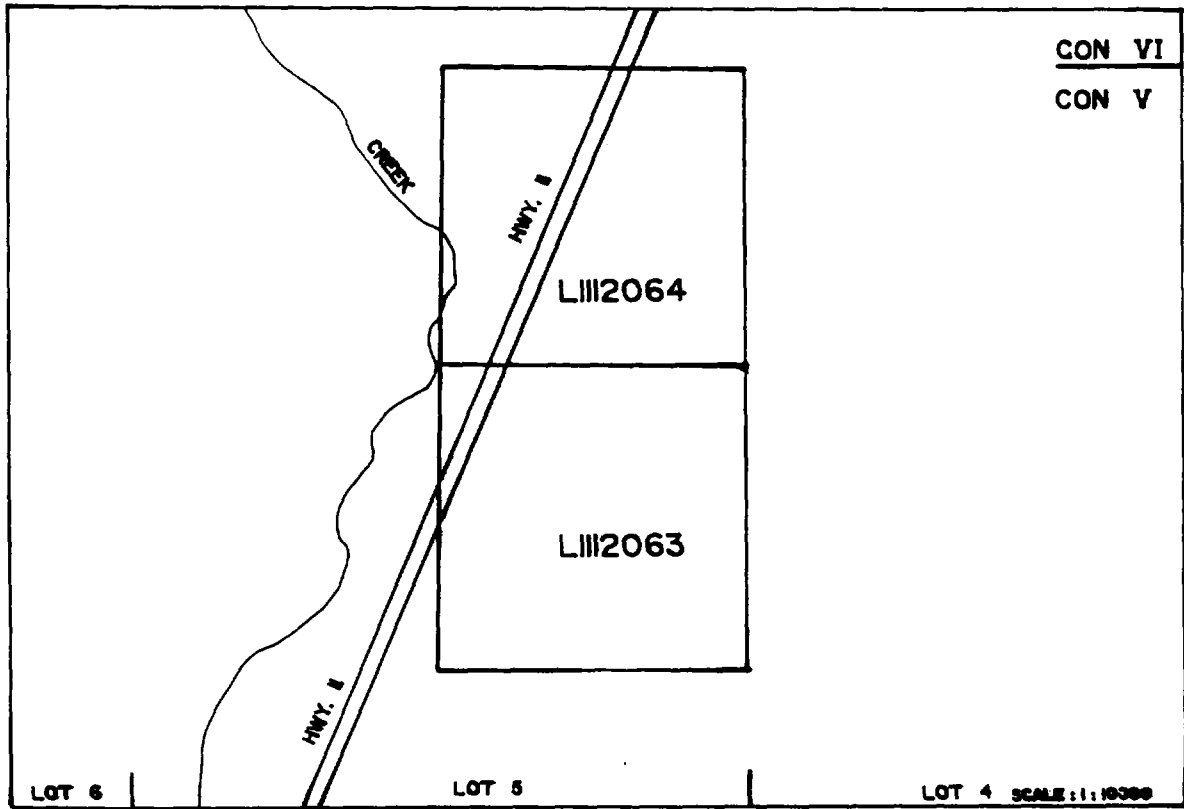
PREVIOUS WORK

The Bucke 53 claims were held most recently by Paul John Bateman of New Liskeard. No work was reported done on them. Monopros held these claims for a short time before Bateman. The Cobalt Assessment Office records no work on this ground.



KEY MAP

SCALE : 1 : 250,000



CON VI
CON V

Figure 1 : Location Map

SUMMARY AND RECOMMENDATIONS

Magnetic and VLF-EM surveys were carried out for Falconbridge Limited in September 1989 over two claims located in Bucke Township.

The VLF-EM survey located two anomalies. It is unknown whether these responses have a surficial or a poor bedrock source.

The magnetic survey located two features of high relief in the southeast portion of the grid. It is recommended that an intermediate line at 25 West be cut from 0 to 200 North, and the vertical magnetic gradient survey be measured along Lines 0, 25 and 50 West to better define the boundaries of the two bodies.

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INTRODUCTION

During September 1989, magnetic and very low frequency electromagnetic (VLF-EM) surveys were carried out for Falconbridge Limited over a property located in Bucke Township.

The property is situated approximately six kilometres south of the town of New Liskeard, in the Larder Lake Mining Division. It was accessed via Highway 11 which runs northeast through the property. The area surveyed consists of two claims numbered L 1112063 and L 1112064. These claims cover the north half Concession IV, northeast and southeast quarters Lot 5 (Figure 1).

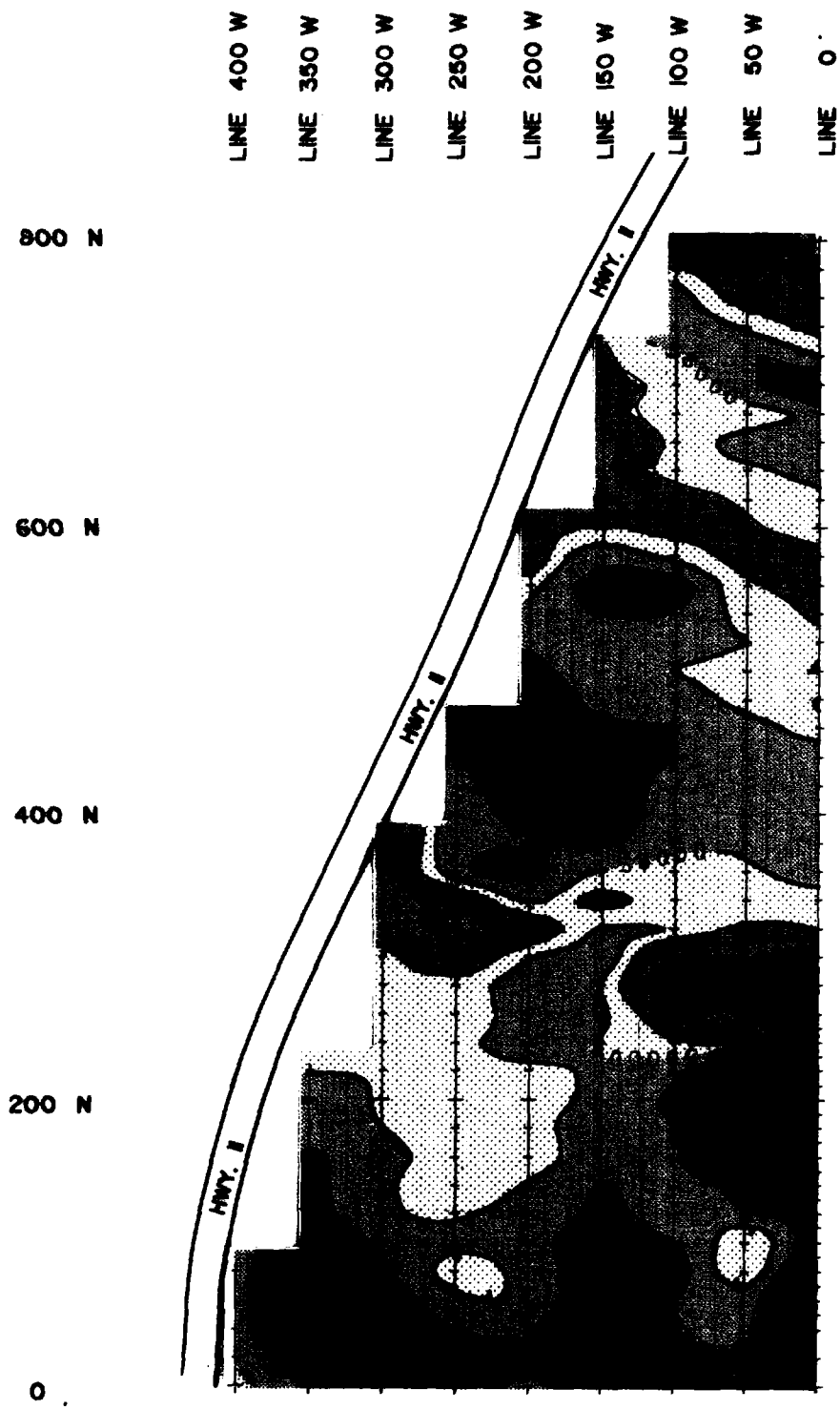
The field data were collected by R. Leduc.

SURVEY DESCRIPTIONS

An east-west baseline was established and north-south survey lines were cut at 50 metre intervals. Lines were picketed every 20 metres.

The VLF-EM survey was carried out with a Scintrex IGS-2/VLF-4. This instrument measures the horizontal field strength and the in-phase and quadrature components of the vertical magnetic field. The transmitter station utilized was Cutler, Maine which transmits at a frequency of 24.0 kHz.

The magnetic readings were taken every 20 metres with a Scintrex IGS-2/MP-4. This instrument is a total field proton precession magnetometer which



CON VI
 CON V



FALCONBRIDGE LIMITED	
MAGNETIC SURVEY	
BUCKE 53 PROPERTY	
NTS : 31-M/5	PROJ # 8884
Scale : 1 : 5000	Date : September 1988
Contour Interval : 25 gammas	

measures the earth's total magnetic field to an accuracy of 0.1 gammas. The diurnal drift was monitored every 10 seconds with a Scintrex MP-3 base station magnetometer.

VLF-EM RESULTS

The VLF-EM results are plotted on map 1 at a scale of 1:2000. The profile scale is 1 cm = 20 degrees. Two anomalies were outlined in the results. The source of the anomalies is unknown; they could be either surficial or a poor bedrock source.

MAGNETIC RESULTS

The magnetic results are plotted on Map 2 at a scale of 1:2000. A colour image of these results at a scale of 1:5000 is given in Figure 2.

The major features of the magnetic results are two features of high relief in the southeast corner of the survey area. The more northern anomaly continues off the grid and is elongated in an east-west direction.

Shawn Taylor

S. TAYLOR

TIMMINS GEOPHYSICS LTD.

APPENDIX A



2.10767

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) GEOPHYSICAL
Township or Area Bucke
Claim Holder(s)
Survey Company Timmins Geophysics Ltd.
Author of Report Sharon Taylor
Address of Author P.O.Box 1783, South Porcupine, Ont.
Covering Dates of Survey Sept. 17/89 - Nov. 1/89
Total Miles of Line Cut 5.7 km

MINING CLAIMS TRAVERSED
List numerically

L 1112063
(prefix) (number)
L 1112064

SPECIAL PROVISIONS
CREDITS REQUESTED

Table with 2 columns: Geophysical, Geological, Geochemical and 1 column: DAYS per claim. Includes entries for Electromagnetic (40), Magnetometer (20), Radiometric, and Other.

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

Magnetometer Electromagnetic Radiometric
(enter days per claim)

DATE: June 20/90 SIGNATURE: Sharon Taylor
Author of Report or Agent

Res. Geol. Qualifications 28510

Previous Surveys

Table with 4 columns: File No., Type, Date, Claim Holder. Multiple empty rows for data entry.

TOTAL CLAIMS 2

If space insufficient, attach list

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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



Number of Stations 250 Number of Readings Mag 267 VLF 270
Station interval 20 m Line spacing 50m
Profile scale VLF 1 cm = 20 degrees
Contour interval MAG 25 gammas

MAGNETIC

Instrument Scintrex IGS-2/MP-4
Accuracy - Scale constant 0.1 gammas
Diurnal correction method base station
Base Station check-in interval (hours) 10 seconds
Base Station location and value Line 400 West - 0 North
Base Value 57987 gammas

ELECTROMAGNETIC

Instrument Scintrex IGS-2/VLF-4
Coil configuration vertical
Coil separation infinite
Accuracy 0.1 degrees
Method: [X] Fixed transmitter [] Shoot back [] In line [] Parallel line
Frequency Cutler, Maine 24.0 kHz (specify V.L.F. station)
Parameters measured Horizontal field strength, in-phase and quadrature
components of vertical field

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



Ontario

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Mining Lands Section
3rd Floor, 880 Bay Street
Toronto, Ontario
M5S 1Z8
(416) 965-4888

September 13, 1990

Your File: W9008.167
Our File: 2.13424

Mining Recorder
Ministry of Northern Dev. & Mines
4 Government Road East
KIRKLAND LAKE, Ontario
P2N 1A2

Dear Madam/Sir:

RE: Notice of Intent dated August 14, 1990 for Geophysical
(Electromagnetic & Magnetometer) Survey submitted on Mining
Claim: L 1112063 et al in Bucke Township.

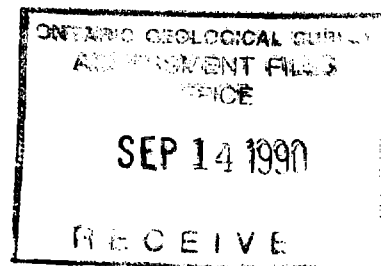
The assessment work credits, as listed with the above-mentioned
Notice of Intent, have been approved as of the above date.

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

Yours sincerely,

Ron Gashinski
Acting Provincial Manager, Mining Lands
Mines & Minerals Division

RIS
LUS: zm
Encl:



cc: Mr. W. D. Tieman
Mining & Lands Commissioner
Toronto, Ontario

Resident Geologist
Kirkland Lake, Ontario

Falconbridge Ltd.
Timmins, Ontario

Sharon Taylor
South Porcupine, Ontario



Recorded Holder
Falconbridge Limited

Township or Area
Bucke

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical Electromagnetic <u>40</u> days Magnetometer <u>20</u> days Radiometric _____ days Induced polarization _____ days Other _____ days Section 77 (19) See "Mining Claims Assessed" column Geological _____ days Geochemical _____ days Man days <input type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input type="checkbox"/> Ground <input type="checkbox"/> <input 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.	L 1112063

Special credits under section 77 (16) for the following mining claims

[Empty box for special credits]

No credits have been allowed for the following mining claims

not sufficiently covered by the survey insufficient technical data filed

20 days credit for electromagnetic and 10 days credit for magnetometer:

L 1112064

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical - 80; Geological - 40; Geochemical - 40; Section 77(19) - 60.

DOCUMENT NO.
W9008-167

- Instructions**
- Please type or print
 - Refer to Section 77, the Mining Act for assessment work requirements and maximum credits allowed per survey type
 - If number of mining claims traversed exceeds space on this form, attach a list.
 - Technical Reports and maps in duplicate should be submitted to Mining Lands Section, Mineral Development and Lands Branch.

Report of Work 2.13424
(Geophysical, Geological and Geochemical Surveys)

Type of Survey(s) GEOPHYSICAL	Mining Division LARDER LAKE	Township or Area BUCKE
Recorded Holder(s) Falconbridge Limited	Prospector's Licence No. A21647	
Address 571 Moneta Ave., Box 1140, Timmins, Ontario P4N 7H9		Telephone No. (705) 267-1188
Survey Company Timmins Geophysics Ltd.		
Name and Address of Author (of Geo-Technical Report) Sharon Taylor, P.O. Box 1783, South Porcupine, Ont. P0N1H0		Date of Survey (from & to) 19, 06, 89 19, 06, 89

Credits Requested per Each Claim in Columns at right

Mining Claims Traversed (List in numerical sequence)

Special Provisions	Geophysical	Days per Claim	Mining Claim		Mining Claim		Mining Claim	
			Prefix	Number	Prefix	Number	Prefix	Number
For first survey:	- Electromagnetic	40	L	1112063				
Enter 40 days. (This includes line cutting)			- Magnetometer	20	L	1112064		
For each additional survey using the same grid:	- Other							
Enter 20 days (for each)	Geological							
	Geochemical							
Man Days (Delete reverse side and total(s) here)	Geophysical	Days per Claim						
	- Electromagnetic							
	- Magnetometer							
	- Other							
	Geological							
	Geochemical							
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	Days per Claim						
	Magnetometer							
	Other							
Total miles flown over claim(s)								
Date June 19/90	Recorded Holder or Agent (Signature) <i>Jim Aultman</i>		Total number of mining claims covered by this report of work. 2					

Certification Verifying Report of Work

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

Name and Address of Person Certifying
Jim Aultman, 571 Moneta Ave., Box 1140, Timmins, Ontario. P4N 7H9

Telephone No. **(705) 267-1188** Date **June 19/90** Certified By (Signature) *Jim Aultman*

For Office Use Only

Jurat Days Cr. Recorded 120	Date Recorded June 20/90	Mining Recorder <i>M. G. Werner</i>
Date Approved as Recorded		Provincial Manager Mining Lands
See revised work statement		

Received Stamp
RECEIVED
LARDER LAKE
MINING DIVISION
JUN 20 1990
TIME **8:25am**

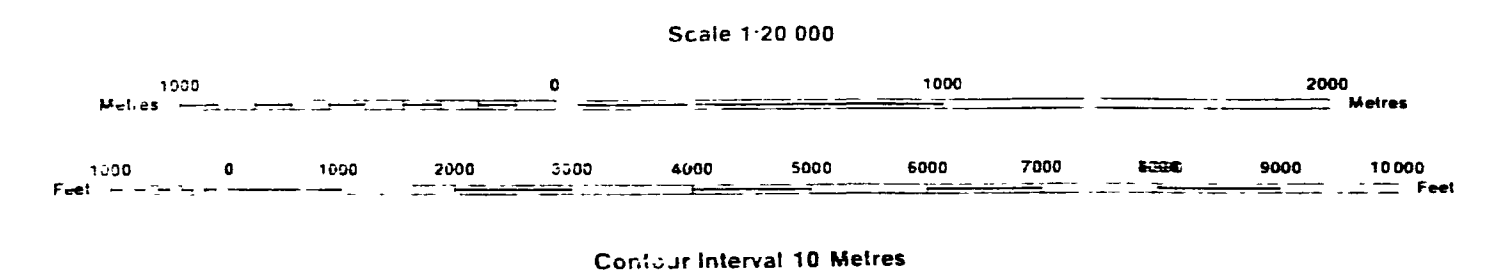
INDEX TO LAND DISPOSITION

PLAN
 G-3413
 TOWNSHIP

M.N.R. ADMINISTRATIVE DISTRICT
TEMAGAMI
 MINING DIVISION
LARDER LAKE
 LAND TITLES/REGISTRY DIVISION
TIMISKAMING

BUCKE

GEOLGY PEFERENCE COBALT RESIDENT GEOLOGIST



AREAS WITHDRAWN FROM DISPOSITION

MRO - Mining Rights Only
 SRO - Surface Rights Only
 M - S - Mining and Surface Rights

SYMBOLS

Description	Order No.	Date	Disposition	File
Boundary				
Township, Meridian, Baseline				
Flood allowance, surveyed				
uncolored				
Lot/Concession, surveyed				
unsurveyed				
Parcel, surveyed				
unsurveyed				
Right-of-way: road				
railway				
utility				
Reservation				
Cliff, Pit, Pile				
Contour				
Interpolated				
A: proximate				
Depression				
Control point (horizontal)				
Flooded land				
Mine head (same)				
Pipeline (above ground)				
Railway, single track				
double track				
abandoned				
Road, highway, county, township				
access				
trail, bush				
Shoreline (original)				
Transmission line				
Wooded area				

DISPOSITION OF CROWN LANDS

Patent	
Surface & Mining Rights	●
Surface Rights Only	○
Mining Rights Only	◐
Lease	
Surface & Mining Rights	■
Surface Rights Only	□
Mining Rights Only	◑
License of Occupation	▽
Order-in-Council	OC
Cancelled	⊖
Reservation	⊙
Sand & Gravel	⊘

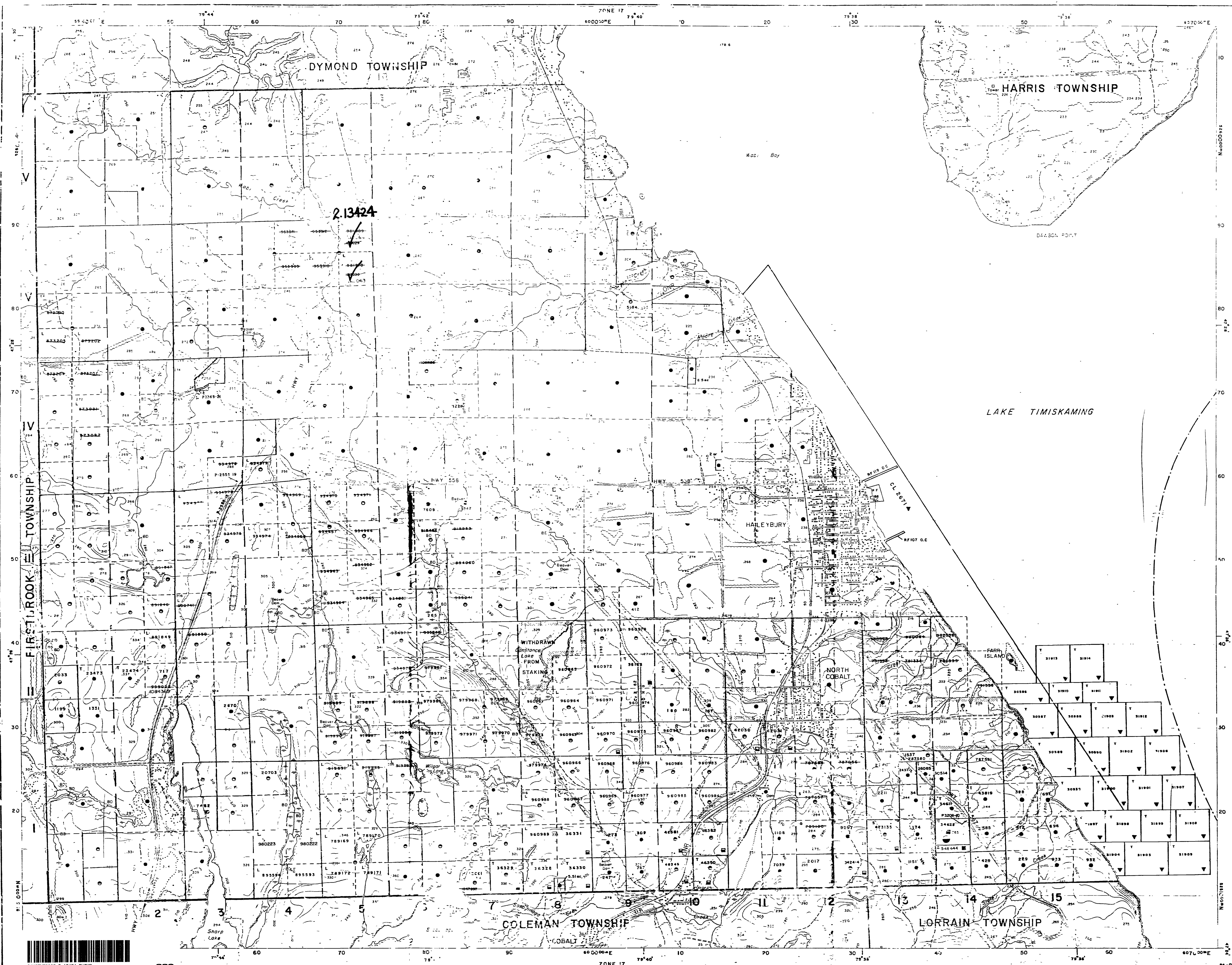
NOTES

FLOODING RIGHTS TO ELEVATION 505' ABOVE SEA LEVEL IN LAKE
 TIMISKAMING FILE 133387
 NORTH HALF LOT 8 CON 2 SUBJECT TO EQUITARY CONTROL OF
 CONSTANCE LAKE FOR TOWN OF HAILEYBURY.
 STAKINGS OF MINING CLAIMS WITHIN TOWNSHIPS SHOWN THIS
 ONLY WITH CONSENT OF THE MINISTER

DATE OF ISSUE
JUN 4 1980
 LARDER LAKE
 MINING RECORDERS OFFICE

THE INFORMATION THAT
 APPEARS ON THIS MAP
 HAS BEEN COMPILED
 FROM VARIOUS SOURCES
 AND ACCURACY IS NOT
 GUARANTEED. THOSE
 DESIRING TO STAKE MINING
 CLAIMS SHOULD CONSULT
 WITH THE MINING
 RECORDERS MINISTRY OF
 NORTHERN DEVELOP
 MENT AND MINES FOR AD
 DITIONAL INFORMATION
 ON THE STATUS OF THE
 LANDS SHOWN HEREON

CIRCULATED APRIL 27/80



LINE 400 W
 LINE 350 W
 LINE 300 W
 LINE 250 W
 LINE 200 W
 LINE 150 W
 LINE 100 W
 LINE 50 W
 LINE 0
 LINE 100 E

800 N

600 N

400 N

200 N

0

CON VI

CON V

800 N

600 N

400 N

200 N

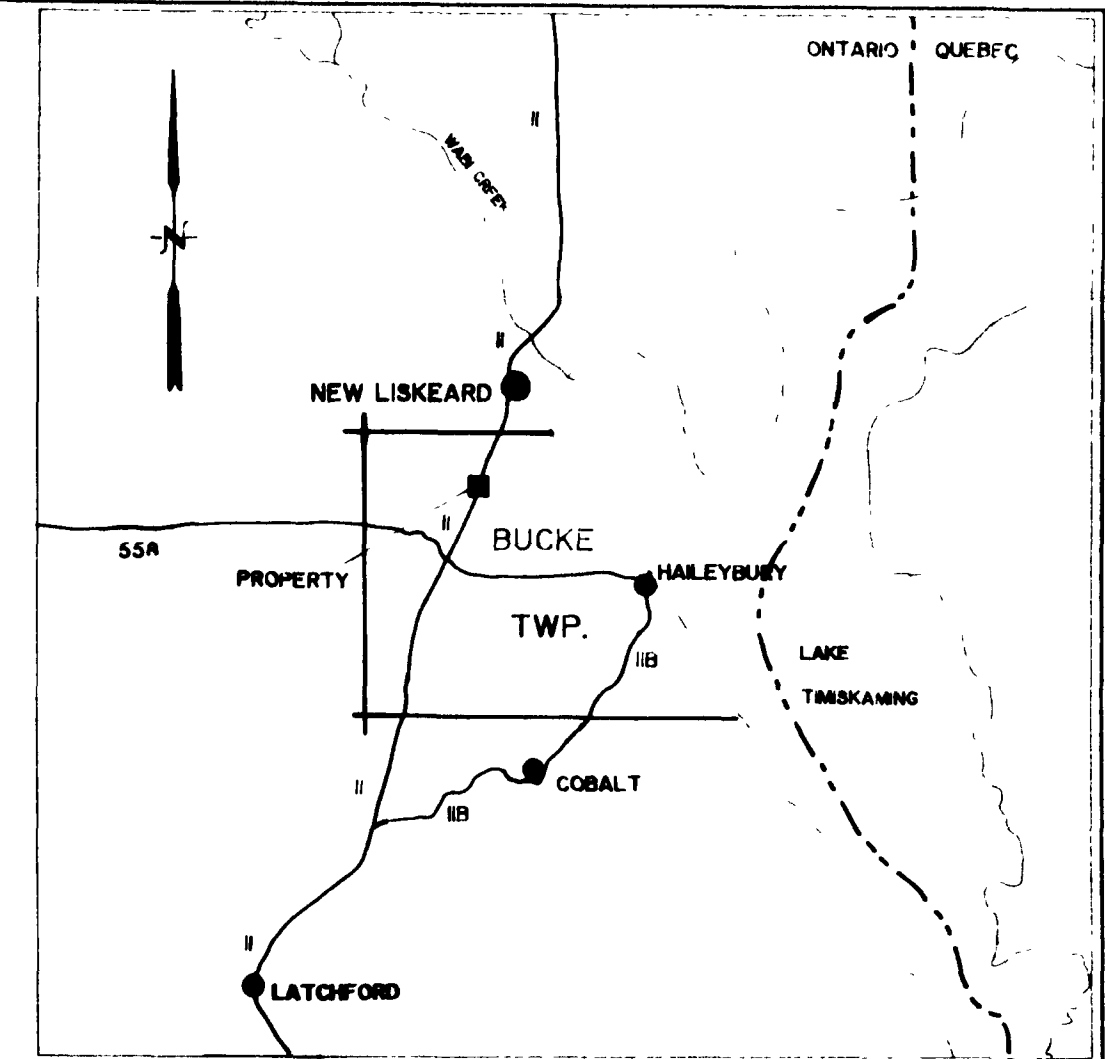
0

LIII2064

LIII2063

LOT 5

LOT 4



KEY MAP

SCALE: 1:250,000



Instrument : Scintrex IGS-2/MP-4
 Type : Total Field Proton Precession
 Datum Level : 58000 gammas
 Contour Interval : 25 gammas

Claimposts :

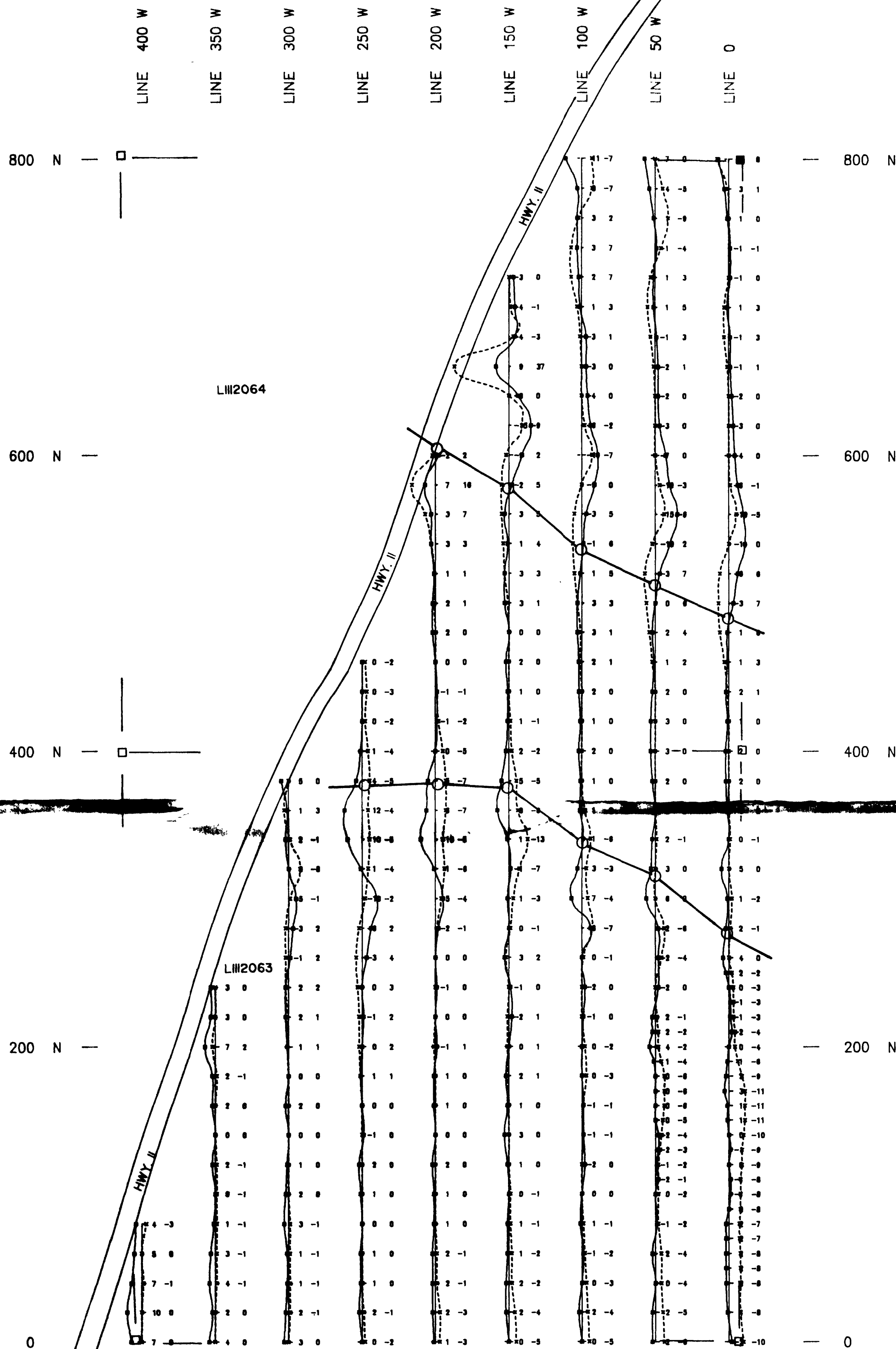
- Located
- Unlocated
- ▲ Base Station

2. 13424

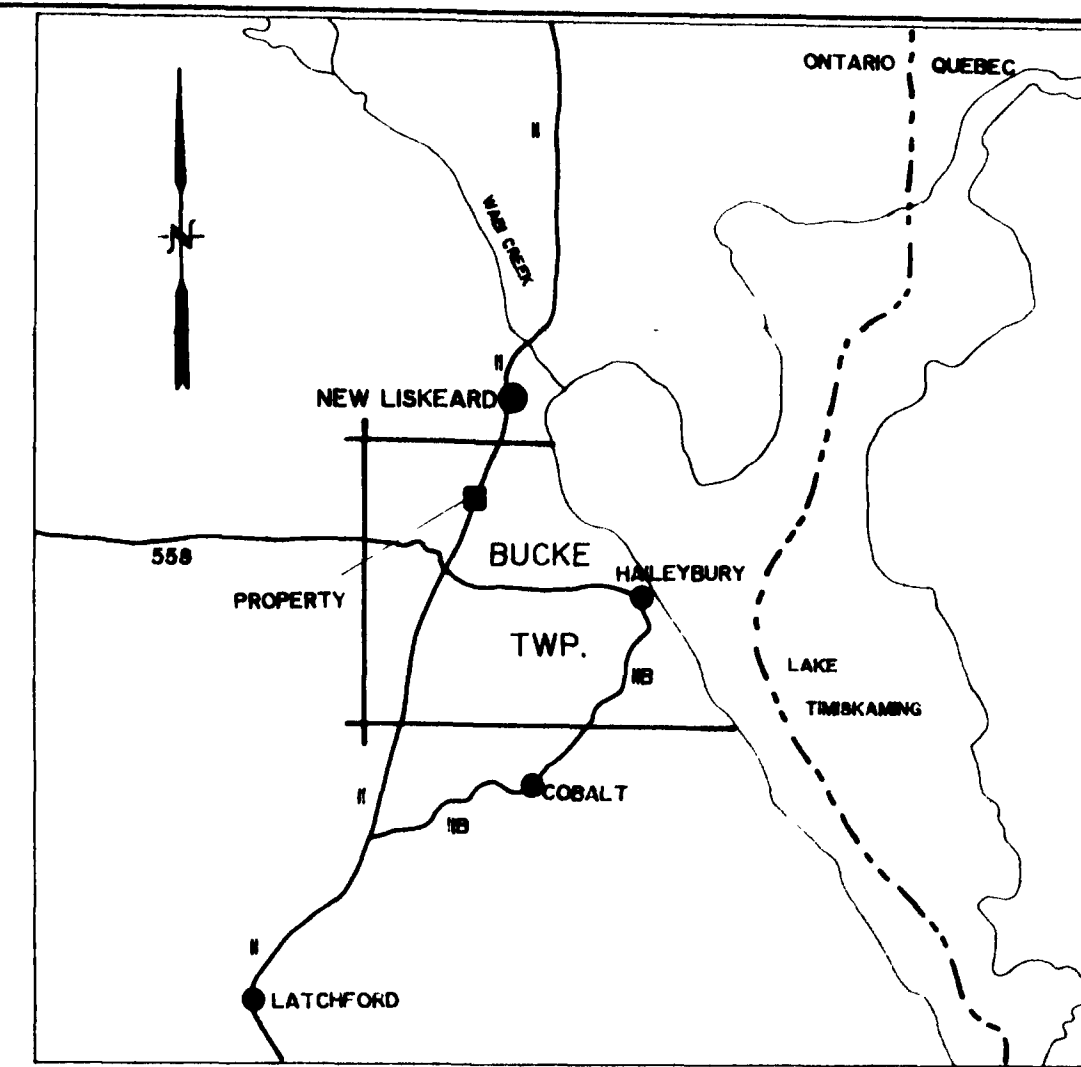
FALCONBRIDGE LIMITED
 MAGNETIC SURVEY
 BUCKE 53 PROPERTY

NTS : 3I-M/5	PROJ # 8164
SCALE : 1: 2000	DATE : SEPTEMBER 1989
FILE : BUCK.MAG	Shawn Taylor
WORK BY :	Timmins Geophysics Ltd.



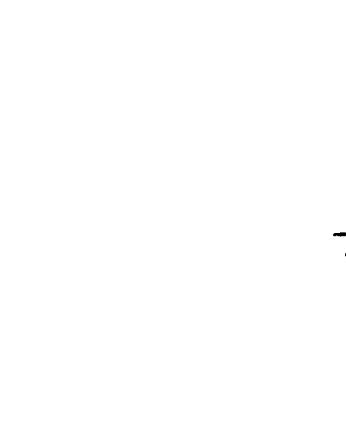


CON VI
CON V



KEY MAP

SCALE - 1 : 250,000



○ Anomaly

Claimposts :

■ Located

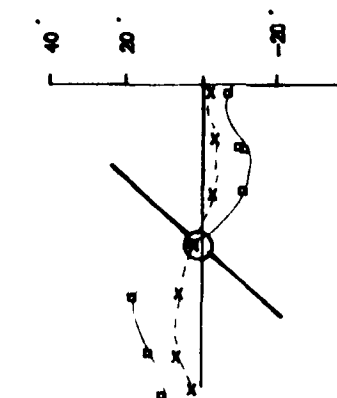
□ Unlocated

Instrument : Scintrex IGS-2/VLF-4

Transmitter Station : Cultier Maine

Frequency : 24.0 kHz

Profile Scale : 1 cm = 20 degrees



In-phase

Quadrature

2.13424

FALCONBRIDGE LIMITED

VLF SURVEY

BUCKE 53 PROPERTY

NTS : 3I-M/5

PROJ # 8164

SCALE : 1 : 2000

DATE : SEPTEMBER 1989

FILE : BUCK.VLF

Shawn Taylor

WORK BY :

Timmins Geophysics Ltd.



220

LOT 5

LOT 4