



41016SE9070 2.15108 MARION

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REPORT ON
GEOPHYSICAL WORK
ON
GENOA & MARION TOWNSHIP CLAIMS
GENOA AND MARION TOWNSHIPS
NTS: 41-0/16 PROJ # 8688
FOR
FALCONBRIDGE LIMITED

JUNE 1993

Qual.
2.2289
D. LONDRY
TIMMINS GEOPHYSICS LTD.

SUMMARY AND RECOMMENDATIONS

HLEM, VLF and magnetic surveys were carried out on a number of claims in Genoa and Marion Townships for Falconbridge Limited.

The EM surveys outlined three conductors. Anomaly 'A' is located approximately 300 metres north of the Woman River Iron Formation. The source of the anomaly between Lines 16200 and 17700 East is a narrow zone with a poor conductivity and no magnetic correlation; on Lines 14500 and 14600 East the width and conductivity are much better. Anomalies 'B' and 'C' coincide with bands of the Woman River Iron Formation which has an excellent conductivity.

It is recommended that anomaly 'A' is tested by diamond drilling on Line 14500 East where the conductivity and width is greatest. It is also recommended that a segment of this anomaly between Lines 16700 and 17300 East is tested.



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INTRODUCTION

During May 1993, magnetic, horizontal loop electromagnetic (HLEM) and very low frequency (VLF) surveys were carried out for Falconbridge Limited on their Genoa and Marion claims.

The purpose of the surveys was to examine the ground in the vicinity of the Genoa Marion Township line directly to the north of the Woman River Iron Formation. The lines surveyed are extensions of lines surveyed by Falconbridge to the south in 1992.

The property is located approximately 40 kilometres northwest of the town of Gogama and 51 kilometres southeast of the town of Foleyet, Porcupine Mining Division. It was accessed by travelling south from Highway 101 on the Kenogamissi Road.

The author of this report ran the VLF and magnetic surveys and was assisted by B. Pigeon with the HLEM survey.

GENERAL GEOLOGY

The property is located within the Swayze greenstone belt which consists of steeply dipping metasediments and felsic to basic metavolcanics intruded by granitic and mafic bodies.

The Woman River Iron Formation extends for approximately 22 kilometres from the north edge of Rush Lake in Genoa Township through Marion Township to the southeast corner of Heenan Township. The formation, which is located along the south edge of the survey area, was first described by R. C. Allen in 1909 and

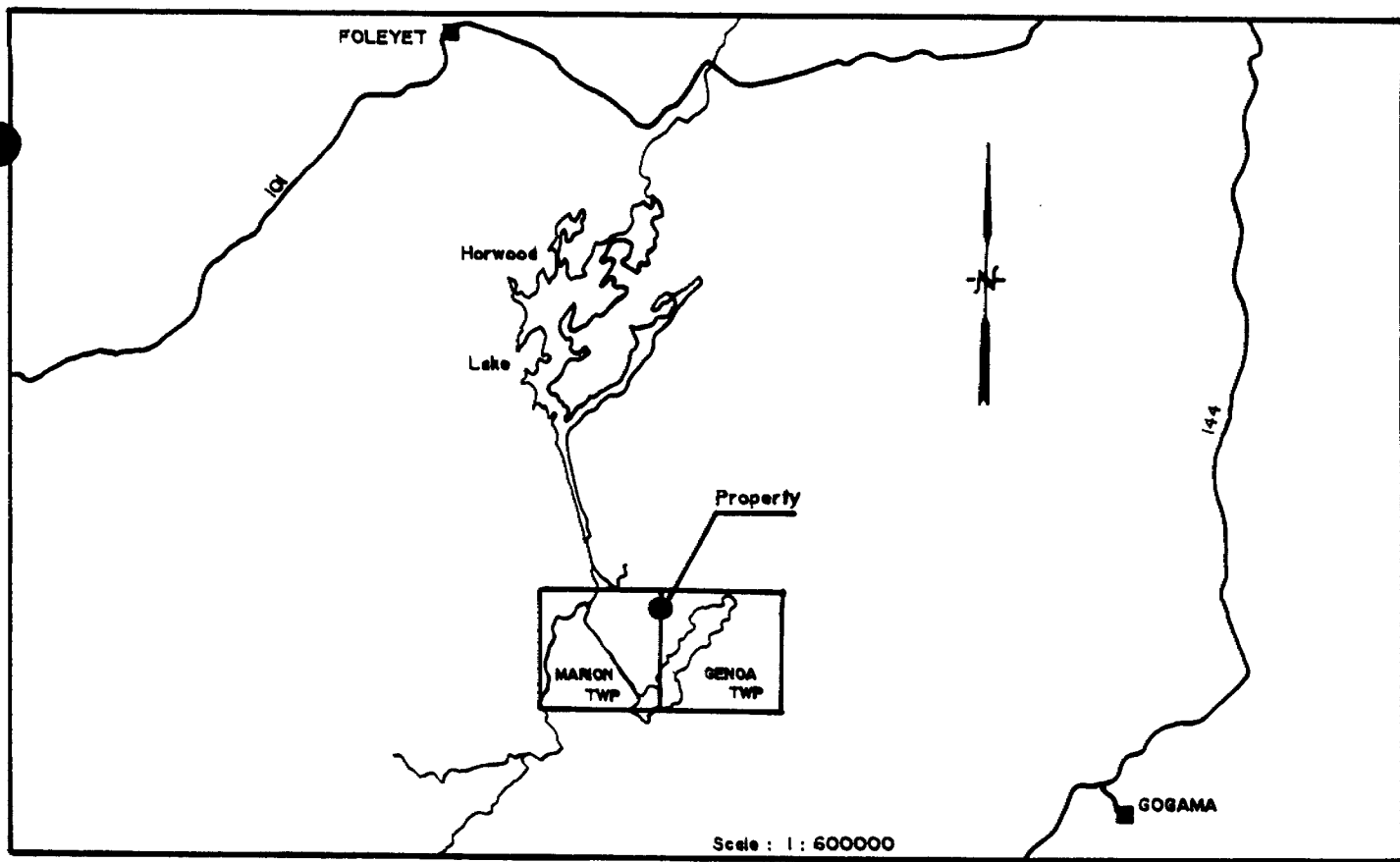


Figure 1 : Location Map

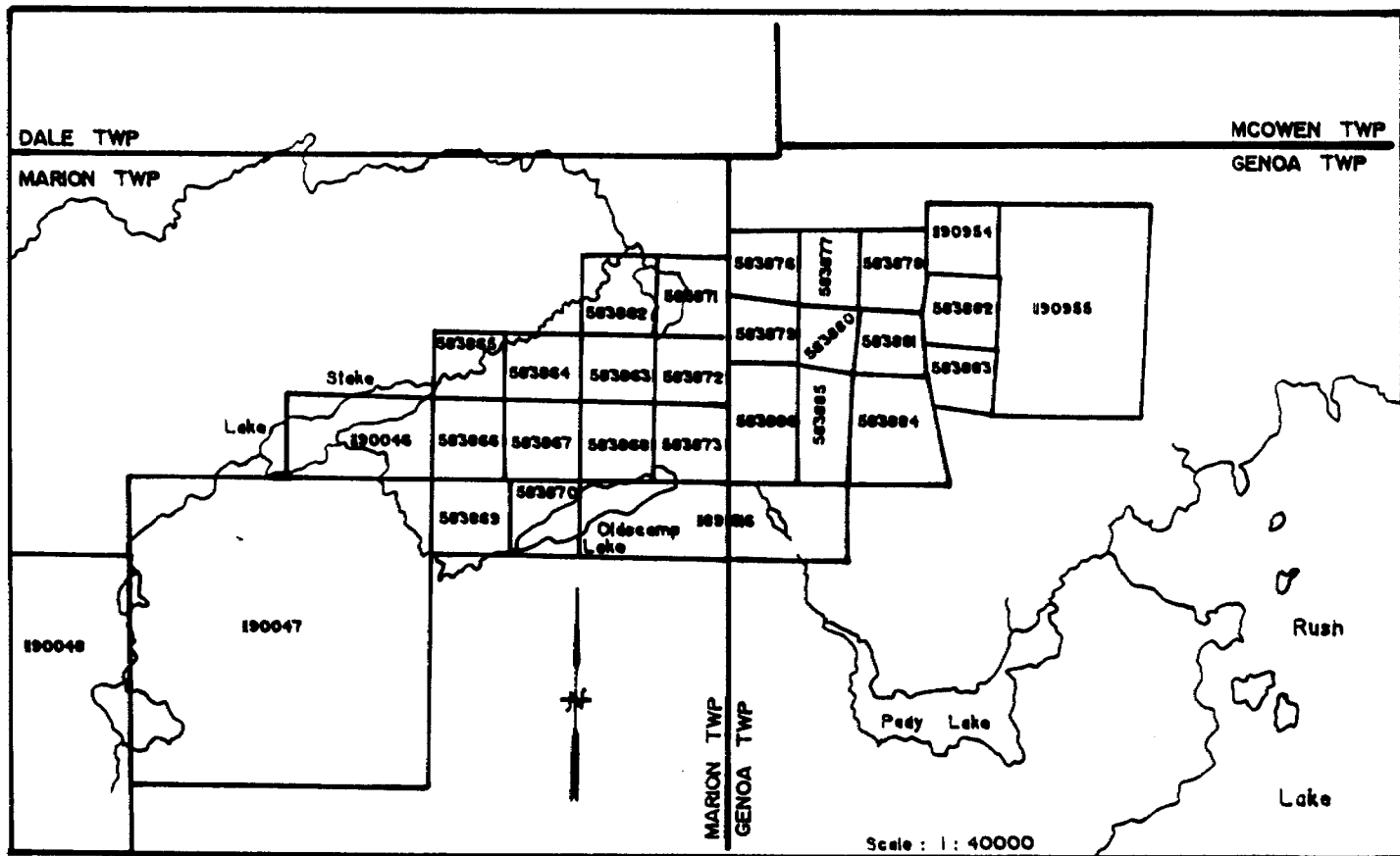


Figure 2 : Claim Map

later by E. S. Moore in 1927. The area around Rush Lake was mapped by H. M. Bannerman (1934) and A. M. Goodwin (1964). The survey area covered in this report was mapped by B. Manchuk (1982) for Falconbridge Limited between 1980 and 1982 as part of a much larger program which included most of the Woman River Iron Formation. The formation lies at the contact between underlying acid and intermediate volcanics to the south and overlying intermediate to basic volcanics to the north. A granite batholith centered to the south along the west side of Rush Lake cuts off the iron formation on the east side of the survey area. All of the rocks have been intruded by north-south striking diabase dikes.

Geophysically the iron formation has excellent conductivity and a very high magnetic susceptibility. In the area of the present surveys the formation consists of two parallel, closely spaced bands. The best EM technique used to map these individual bands is the VLF method because of the better resolution, as compared to the HLEM method.

PREVIOUS WORK

The following is a description of previous work (Table 1) carried out in the area which has been filed for assessment credits.

In 1908, W. D. Smith staked 23 claims over a portion of the Woman River iron formation between Rush Lake and Rush River. In 1910, Jefferson Mining Corporation drilled a number of holes, totalling 4000 feet, on these claims to investigate the formation as a source of iron. Two of these holes on claim WD 717 (presently claim 583881) intersected sphalerite, galena and chalcopyrite and in 1912, an eight foot deep shaft was sunk 360 feet to the east of the holes.

YEAR	COMPANY	GEOPHYSICS	DRILL HOLES	ASSESSMENT FILE
1981	FALCONBRIDGE LIMITED	MAG,VLF,HLEM,GEOL		2345
1985	NORANDA EXPLORATION CO. LTD.	MAG,HLEM		2973
1978	NORANDA EXPLORATION CO. LTD.	MAG,HLEM,GEOL		1888
1978	TEXASGULF CANADA LIMITED	MAG,HLEM,VLF		1908
1975	TEXASGULF CANADA LIMITED	MAG,HLEM		1740
1972	RUSH LAKE EXPLORATION LTD.			2091
1971	CANDORE EXPLORATIONS LIMITED	AMAG		2157
1963	R. J. JOWSEY MINING COMPANY LTD.	MAG,HLEM,GEOL,SOILS		2161
1964	McAREE MINES LIMITED			2087
1957	LUCKY CREEK MINING CO. LTD.			2084
1948	STACKPOOL MINING & HOLDING CORP. LTD.	MAG,EM		2158

Table 1. Summary of previous assessment work.

In 1928, the property was optioned to Rush Lake Mining Company who drilled ten holes, totalling 1500 feet, in the area of the lead zinc showing. In 1929, Canam Metals Limited drilled an additional four holes totalling 1064 feet.

Moore (1927) states that a second shaft was sunk by A. Burton to the

northeast of the shaft on the main showing. This shaft was 40 feet deep and located on a narrow zone of graphitic schist and gouge which had some galena, sphalerite and chalcopryrite. In 1929, sphalerite associated with the iron formation was also found, by Mr. Jack Jessop, on one of his claims between Northcott Bay and Rush Lake (Bannerman, 1929).

In 1950, Central Sudbury Lead-Zinc Mines Limited ran a magnetic survey on the property and drilled 23 holes, totalling 6300 feet, to further test the original showing on claim WD 717. In 1957, Stackpool Mining and Holding Corporation Limited (formerly Stackpool Mining Company Limited and Central Sudbury Lead-Zinc Mines Limited) carried out an electromagnetic survey and drilled a total of 27,747 feet along 14,000 feet of the iron formation to the east and west of the main showing.

In 1957, Lucky Creek Mining Co. Ltd. held 2 claims in northeast Marion Township and 26 claims in northwest Genoa Township, however, no field work was filed for assessment credits.

In 1962, R. J. Jowsey Mining Company Ltd. held 45 claims in two claim groups to the north and south of the Stackpool claims. Geological, geochemical, magnetic and HLEM surveys were run over both groups.

In 1964 McAree Mines Limited held 9 claims in northeast Marion Township and 11 claims in northwest Genoa Township; no field work was filed for assessment credits.

In 1971, Candore Explorations Limited flew an airborne magnetic survey over 6 claims in northeast Marion Township and 36 claims in northwest Genoa Townships as part of a larger program. No ground work was filed for assessment credits.

In 1975, Texasgulf Canada Limited carried out magnetic and HLEM surveys over 22 contiguous claims which covered the Woman River Iron Formation between

Northcott Bay on Rush Lake and the east edge of the survey area covered in this report. The grid on the property consisted of north-south lines spaced every 300 feet and picketed every 100 feet. The magnetic survey was run with a Fluxgate vertical field magnetometer; the HLEM survey was run with a Max Min II using a coil separation of 300 feet and frequencies of 444 and 1777 Hz.

In 1978, Texasgulf ran magnetic, HLEM and VLF surveys over 5 contiguous claims on the iron formation where it crosses the Genoa-Marion township line. The grid on the property consisted of lines oriented perpendicular to the iron formation and spaced every 400 feet. The magnetic survey was run with a total field proton precession magnetometer and the HLEM was run with a MaxMin II using a 400 foot coil separation and frequency of 1777 Hz.; the iron formation on these claims consists of two separate branches which were separated in a detail HLEM survey using a 100 foot coil separation. Cutler, Maine was used for the transmitting station in the VLF survey.

In 1978, Noranda Exploration Company Ltd. ran magnetic, HLEM and geological surveys over 14 claims which straddle the Genoa-Marion township line. The base line on this property was oriented at 75 Az and the grid lines were spaced every 400 feet. A Fluxgate vertical field magnetometer was used in the magnetic survey was run with and the HLEM survey was run with a coil separation of 400 feet and frequencies of 444 and 1777 Hz.

In 1985, Noranda carried out magnetic and HLEM surveys along the iron formation to the east of the present survey area. The magnetic survey was run with a total field proton precession magnetometer and the HLEM survey was run with a coil separation of 100 metres and frequencies of 444 and 1777 Hz. North-south grid lines were spaced every 125 metres.

In the early 1980's Falconbridge Limited carried out an exploration program

along the length of the Woman River iron formation from Genoa Township through Marion Township to Heenan Township. In 1981 and 1982, magnetic and VLF surveys were run over 11 contiguous claims in northwest Genoa Township and 14 claims in northeast Marion Township. The grid on the claims consisted of a base oriented at 75 Az and survey lines spaced every 400 feet. The magnetic survey was run with a total field proton precession magnetometer and the VLF survey used Cutler Maine as the transmitting station. In 1992, Falconbridge recut a grid on the same claims and carried out magnetic and HLEM surveys. The base line on this grid was oriented at 75 Az and survey lines were spaced every 100 metres; the surveys covered in this report were run on extensions of the 1992 grid lines. During the present surveys a picket on the 1981 grid at 49200 West on Line 880 West was located 10 metres east of station 5240 North, Line 14500 East on the 1992/93 grid.

In 1980, Questor Surveys Limited flew a combined airborne magnetic and EM survey for the Ontario Geological Survey (O.G.S., 1982) over the Swayze greenstone belt which included the present Falconbridge property.

SURVEY DESCRIPTIONS

In 1992, a base line designated 5000 North was cut at an orientation of 75 Az, roughly parallel to the Woman River Iron Formation. Orthogonal grid lines were cut south from the base line every 100 metres and picketed every 20 metres. In 1993, the grid lines were extended from Base Line 5000 North to Tie Line 5400 North between 16200 East and 17700 East. Lines 14500 and 14600 East were also extended from Base Line 5000 North to 5600 North; a tie line was cut between

these two lines at 5500 North.

The horizontal loop EM survey was carried out with the Apex Parametrics MaxMin I-5. This instrument measures the in-phase and quadrature components of the secondary field as a percentage of the primary field; the depth of penetration is approximately one half of the coil separation. Readings were taken every 20 metres using a coil separation of 100 metres and frequencies of 444 and 1777 Hertz. A total of 559 readings were taken along 11.28 kilometres of line.

The magnetic readings were taken every 10 metres with a Scintrex IGS-2/MP-4. This instrument is a proton precession magnetometer which measures the earth's total magnetic field to an accuracy of 0.1 gammas. Diurnal variations were monitored every 12 seconds with a Scintrex MP-3 base station magnetometer and all of the readings were tied into the 1992 survey. A total of 743 readings were taken along 7.6 kilometres of line.

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 field. The transmitter station used was Cutler, Maine which operates at a frequency of 24.0 kHz. A total of 374 readings were taken along 8.6 kilometres of line.

EM RESULTS

The results of the HLEM survey are profiled on maps 1 and 2 at a scale of 1:5000. Profiles of the VLF results are presented in map 3 and the Fraser filtered in-phase component is presented in map 4. A coloured image of the Fraser filtered in-phase component is given in Figure 3.

Positive spikes in the in-phase component occur throughout the property where either the transmitter or receiver is located directly over iron formation. Three conductors, labelled 'A', 'B' and 'C' on the maps, were detected.

Anomaly 'A' strikes east-west between 5360 North on Line 16200 East and 5085 North on Line 17700 East. The source of the anomaly between Lines 16200 and 17700 East is a narrow conductor with very poor conductivity at a depth of up to 20 metres (Table 2). The dip of the conductor on these lines is difficult to determine because of the low amplitudes, however, it appears to be close to vertical. The conductor can be divided into three segments based on breaks or slight changes in strike; these are most evident in the Fraser filtered results between Lines 17200 and 17300 East and between Lines 16600 and 16700 East. It is located along a topographic low and has no magnetic anomaly associated with it which suggests that the conductivity may be caused by graphite.

LINE	ANOMALY CENTRE	ANOMALY WIDTH (M)	IP (%)	Q (%)	DEPTH (M)	CONDUCTIVITY THICKNESS (MHOS)	COMMENTS
14500 E	5355 N	40	-41	-15	<10	27	
14600 E	5360 N	10	-27	-16	14	11	
16200 E	5360 N	narrow	-2	-6	10	<1	
16300 E	5350 N	narrow	-9	-12	20	3	
16400 E	5330 N	narrow	-17	-17	14	5	
16500 E	5310 N	narrow	-19	-18	13	5	
16600 E	5290 N	narrow	-17	-17	14	5	
16700 E	5260 N	narrow	-8	-11	20	3	
16800 E	5230 N	narrow	-10	-16	10	3	
16900 E	5210 N	narrow	-22	-19	12	6	
17000 E	5190 N	narrow	-13	-17	12	3	
17100 E	5185 N	narrow	-11	-17	10	3	
17200 E	5185 N	narrow	-2	-7	<10	<1	
17300 E	5180 N	narrow	-2	-9	<10	<1	
17400 E	5170 N	narrow	-4	-12	<10	1	
17500 E	5140 N	narrow	-6	-15	<10	2	
17600 E	5125 N	narrow	-6	-13	<10	2	
17700 E	5085 N	narrow	-5	-6	30	3	

Table 2: Anomaly 'A' Interpretation, 1777 Hz, 100 metre coil separation.

The 1982 VLF survey by Falconbridge Limited suggests that the conductor located between 5355 North on Line 14500 East and 5360 North on Line 14600 East is the west extension of conductor 'A'. The zone has better conductivity and width on the two lines; the dip is close to vertical.

EM anomalies 'B' and 'C' represent bands of the Woman River Iron Formation and have coincident high magnetic anomalies. The VLF survey shows that these bands are 60 metres apart on Lines 16200 to 16500 East and 40 metres apart on Lines 16600 to 16800 East. Since the cable length in the HLEM survey is greater than the distance between the individual bands, this survey shows the formation as one broad zone on Lines 16200 to 16800 East. To the east of Line 16800 East the formation consists of a single band with a width of 10 to 15 metres. The conductivity of the anomaly on Lines 16200 to 17300 East has not been calculated because of the very high amplitude. The high in-phase/quadrature ratio, however, indicates a very good conductivity, greater than 100 mhos; the dip is steep to the south. The formation does not continue to the east of 17300 East, possibly because of the intrusive centered to the south. A one line anomaly at 4920 South on Line 17600 East is likely part of the same horizon.

One band of the iron formation is located at approximately 5130 North on Lines 14500 and 14600 East. Anomaly 'B' reflects a narrow conductor with fair

LINE	ANOMALY CENTRE	ANOMALY WIDTH (M)	IP (%)	Q (%)	DEPTH (M)	CONDUCTIVITY THICKNESS (MHOS)	COMMENTS
14500 E	5120 N	narrow	-6	-4	50	10	
14600 E	5140 N	narrow	-5	-4	48	9	

Table 3: Anomaly 'B' Interpretation, 1777 Hz, 100 metre coil separation.

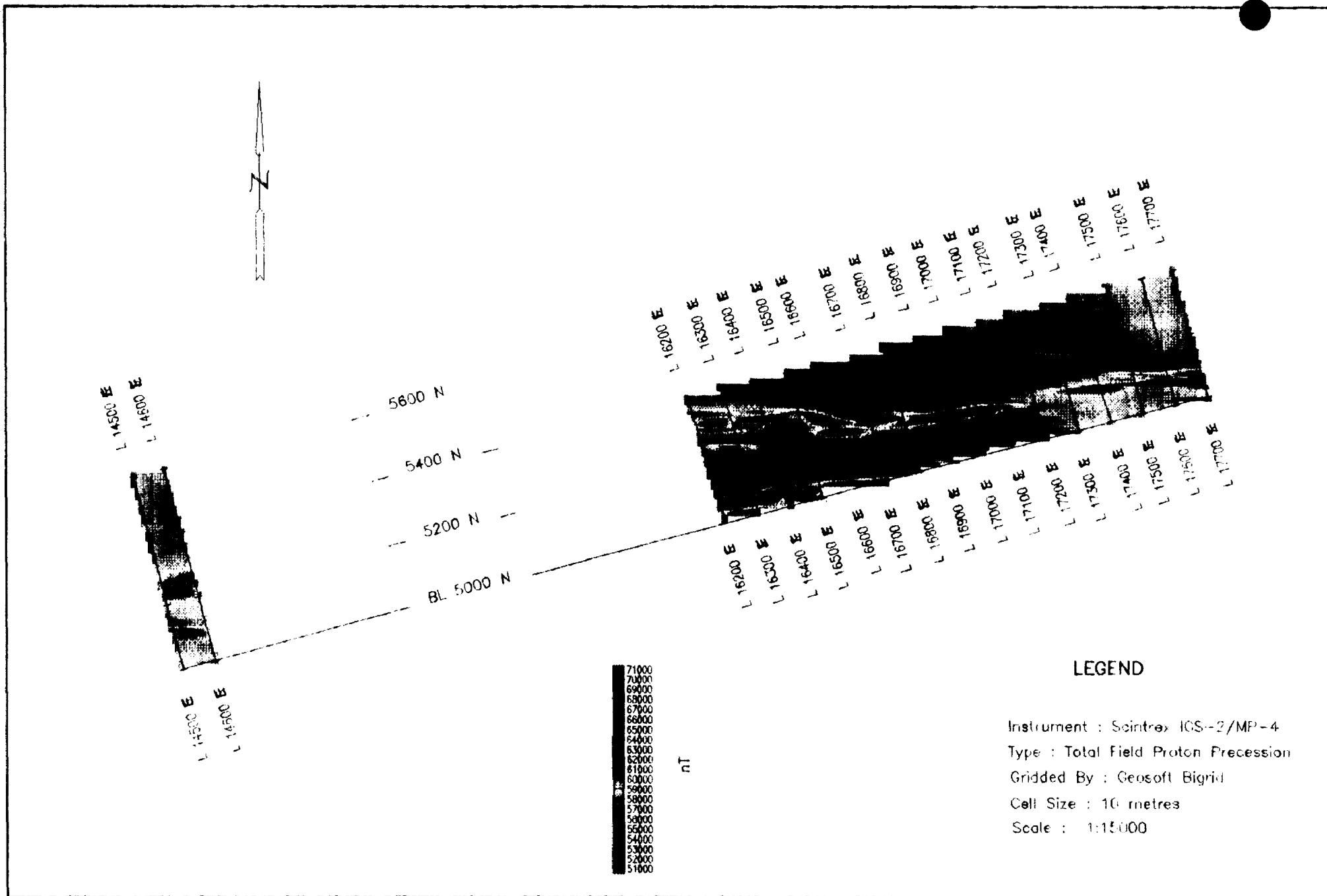


Figure 3: Colour Image of Total Magnetic Field

conductivity at a depth of 50 metres (Table 3). Previous EM surveys indicate that a second band is located approximately 200 metres to the south.

MAGNETIC RESULTS

The magnetic results are plotted on Map 4 at a scale of 1:5000. A colour image of the results is given in Figure 3 at a scale of 1:15000.

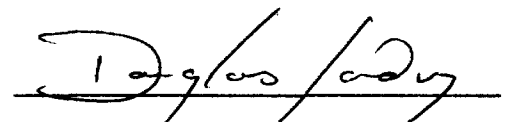
A narrow, linear, magnetic anomaly strikes east-west through the survey area from 5080 North on Line 17700 East to 5340 North on Line 16200 East. To the west, on Lines 14500 and 14600 East, it is located at approximately 5250 North. There is no conductivity associated with this magnetic feature; it is situated roughly 60 metres to the south of EM anomaly 'A'. There are breaks or changes in strike, similar to those seen along EM anomaly 'A,' at 16700 East and between Lines 17200 and 17300 East.

The highest magnetic field in the survey area maps a band of the Woman River Iron Formation on the south end of Lines 16200 to 16700 East. It was not possible to get a reading over parts of the formation because of the very high magnetic gradient.

The slightly higher readings along Line 17600 East is likely due to a diabase dike.

June 29/93

DATE


D. LONDRI

TIMMINS GEOPHYSICS LTD.

REFERENCES

ALLEN, R.C.

1909: Iron Formation of the Woman River Area; Ontario
Department of Mines, Vol. XVIII, pt. 1, pp.254-262.

BANNERMAN, H.M.

1929: Mineral Deposits of the Eastern Part of Horwood Lake Map
Area; Geological Survey of Canada, Summary Report
1929, pt C.

1933: Rush Lake Area, Sudbury District; Geological Survey of
Canada, Summary Report 1933, pt. D, pp 38-82.

GOODWIN, A.M.

1965: Geology of Heenan and Marion Townships and the Northern
Part of Genoa Township, District of Sudbury; Ontario
Department of Mines, Geological Report No. 38.
Accompanied by Map 2067, Scale 1 inch to 1/2 mile.

MANCHUK, B.

1982: Geological Survey Report, Heenan, Marion and Genoa
Townships; Falconbridge Limited company report,
Timmins assessment file T-2345. Accompanied by
geological map at a scale of 1:5000.

MOORE, E.S.

1926: A Lead and Zinc Deposit in Keewatin Iron Formation;
Bull. Canadian Inst. Min. Met., March 1926, p. 371.

1927: Sakhatawich (Rush) Lake Section, Woman River Iron
Range, District of Sudbury; Ontario Department of
Mines, Vol. XXXV, 1926, pt. 2, pp. 86-96.

ONTARIO GEOLOGICAL SURVEY

1982: Airborne Electromagnetic and Total Intensity Magnetic
Survey, Swayze Area, Puppet Lake Sheet, District of
Sudbury; by Questor Surveys Limited, for the Ontario
Geological Survey, Map 80543, scale 1:20000.



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Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Geoscience Approvals Section
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

October 6, 1993

Telephone: (705) 670-5853
Fax: (705) 670-5863

Our File: 2.15108
Transaction #: W9360.00127

Mining Recorder
Ministry of Northern
Development and Mines
60 Wilson Avenue
1st Floor
Timmins, Ontario
P4N 2S7

Dear Sir/Madam:

**Subject: APPROVAL OF ASSESSMENT WORK CREDITS ON MINING CLAIMS
P583865 ET AL IN GENOA AND MARION TOWNSHIPS**

The assessment work credits for Geophysics, Section 14 of the Mining Act Regulations, have been approved as outlined on the original submission.

The approval date is September 28, 1993.

If you have any questions regarding this correspondence, please contact Lucille Jerome at (705) 670-5855.

Yours sincerely,

Ron C. Gashinski
Senior Manager, Mining Lands Section
Mining and Land Management Branch
Mines and Minerals Division

A lj/dm

cc: Resident Geologist
Timmins, Ontario

Assessment Files Library
Toronto, Ontario ✓

Report of Work Conducted After Recording Claim
Mining Act

Transaction Number
W9360.00127

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

2.15108

- Instructions:**
- Please type or print and submit in duplicate.
 - Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder.
 - A separate copy of this form must be completed for each Work Group.
 - Technical reports and maps must accompany this form in duplicate.
 - A sketch, showing the claims the work is assigned to, must accompany this form.

Recorded Holder(s) Falconbridge Limited		Client No. 130679
Address P.O. Box 1140, 571 Moneta Avenue, Timmins, Ontario, P4N 7H9		Telephone No. (705)267-1188
Mining Division Porcupine	Township/Area Genoa and Marion Townships	M or G Plan No. G-1131, G-1174
Dates Work Performed From: May 14, 1993		To: June 29, 1993

Work Performed (Check One Work Group Only)

Work Group	Type
Geotechnical Survey	Magnetic, Horizontal Loop EM and VLF EM
Physical Work, including Drilling	Linecutting
Rehabilitation	
Other Authorized Work	
Assays	
Assignment from Reserve	

RECEIVED 9/14/93
JUL 23 1993
MINING LANDS BRANCH

RECORDED
JUL - 5 1993
Receipt _____

Total Assessment Work Claimed on the Attached Statement of Costs \$ 6,576.00

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
D. Londry Timmins Geophysics Limited	1680 Latimer Crescent, Sudbury, Ont. P3E 2V7
B. Pigeon	P.O. Box 468, Schumacher, Ontario

(attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date June 29, 1993	Recorded Holder or Agent (Signature) <i>D. Londry</i>
--	-----------------------	--

Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.		
Name and Address of Person Certifying D. Londry, Timmins Geophysics Ltd., 1680 Latimer Crescent, Sudbury, Ont. P3E 2V7		
Telephone No. (705) 523-5479 267-1188	Date June 29, 1993	Certified By (Signature) <i>D. Londry</i> R. Baber

For Office Use Only

Total Value Cr. Recorded \$ <u>6,576.00</u>	Date Recorded <u>JUL 15th / 93</u>	Mining Recorder <i>[Signature]</i>	RECEIVED JUL 5 1993 <u>1:15</u>
	Deemed Approval Date <u>Oct. 4th / 93</u>	Date Approved	
	Date Notice for Amendments Sent		

Work Report Number for Applying Reserve	Claim Number (see Note 2)	Number of Claim Units
	P583865	1
	P583866	1
	P583876	1
	P583877	1
	P583878	1
	P583879	1
	P583880	1
	P583881	1
	P583882	1
	P583883	1
	P583885	1
	P583886	1
	P1190954	1
	P1190955	6
14		

Total Number of Claims

Value of Assessment Work Done on this Claim	Value Applied to this Claim
\$391.00	
\$490.00	
\$330.00	
\$330.00	
\$850.00	
\$400.00	
\$620.00	
\$510.00	
\$895.00	
\$100.00	
\$ 55.00	
\$ 35.00	
\$490.00	
\$1080.00	
\$6576.00	

Total Value Work Done

Total Value Work Applied

Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
	\$391.00
	\$490.00
	\$330.00
	\$330.00
	\$850.00
	\$400.00
	\$620.00
	\$510.00
	\$895.00
	\$100.00
	\$ 55.00
	\$ 35.00
	\$490.00
	\$1080.00
Total Assigned From	Total Reserve
	\$6,576.00

RECORDED

Receipt
JUL 5 1993

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to prioritize the deletion of credits. Please mark (✓) one of the following:

1. Credits are to be cut back starting with the claim listed last, working backwards.
2. Credits are to be cut back equally over all claims contained in this report of work.
3. Credits are to be cut back as prioritized on the attached appendix.

In the event that you have not specified your choice of priority, option one will be implemented:

RECORDED
JUL 5 1993

Note 1: Examples of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respect to the mining claims.

Note 2: If work has been performed on patented or leased land, please complete the following:

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.

Signature: *[Signature]* Date: *7/5/93*



Statement of Costs for Assessment Credit

État des coûts aux fins du crédit d'évaluation

Mining Act/Loi sur les mines

Transaction No./N° de transaction

W9360.00127

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute question sur la collecte de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4^e étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre		
	Field Supervision Supervision sur le terrain		
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert-conseil	Type		
	GEOPHYSICS	\$ 3170.	
	LINECUTTING	\$ 2806.	
			\$ 6576.
Supplies Used Fournitures utilisées	Type		
Equipment Rental Location de matériel	Type		
Total Direct Costs Total des coûts directs			

2. Indirect Costs/Coûts indirects

** Note: When claiming Rehabilitation work Indirect costs are not allowable as assessment work. Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type		
Food and Lodging Nourriture et hébergement	Receipt		
Mobilization and Demobilization Mobilisation et démoblisation			
Sub Total of Indirect Costs Total partiel des coûts indirects			
Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)			
Total Value of Assessment Credit (Total of Direct and Allowable indirect costs) Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles)			\$ 6576.

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note: Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

1. Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit	Total Assessment Claimed
	x 0.50 =

Remises pour dépôt

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation	Evaluation totale demandée
	x 0.50

Certification Verifying Statement of Costs

I hereby certify: that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as AGENT / Sr. Field Geologist (F.L) I am authorized (Recorded Holder, Agent, Position in Company)

to make this certification

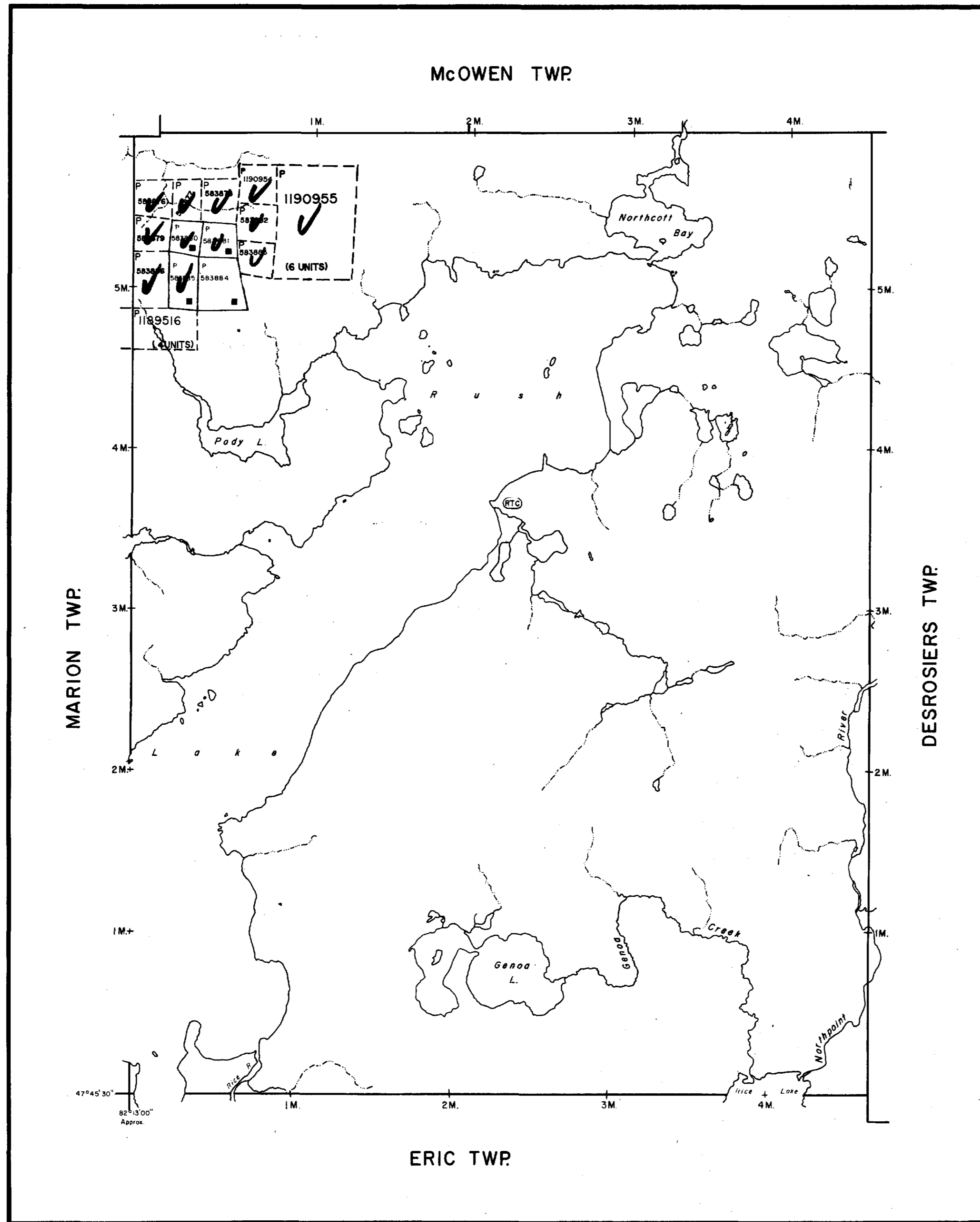
Attestation de l'état des coûts

J'atteste par la présente: que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

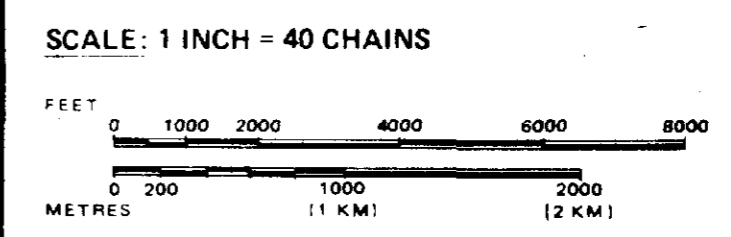
Et qu'à titre de _____ je suis autorisé (titulaire enregistré, représentant, poste occupé dans la compagnie)

à faire cette attestation:

Signature: [Signature] Date: July 5/93
June 29/93



MINING DIVISION
RECEIVED
 JUL 19 1993



LEGEND

PATENTED LAND	
CROWN LAND SALE	
LEASES	
LOCATED LAND	
LICENSE OF OCCUPATION	
MINING RIGHTS ONLY	
SURFACE RIGHTS ONLY	
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	
L.U.P. LAND USE PERMIT	

REMOTE TOURIST CAMPS NOTES

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

LEASE, SURFACE & MINING RIGHTS ■

TOWNSHIP
GENOA
 M.N.R. ADMINISTRATIVE DISTRICT
CHAPLEAU
 MINING DIVISION
PORCUPINE
 LAND TITLES / REGISTRY DIVISION
SUDBURY

Ministry of Natural Resources
 Ministry of Northern Development and Mines

Date REVISED FEB. 1990
 ACTIVATED AUGUST 18, 1992 BY D.C.
 CHECKED BY B.B.

Number
G-1131

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

GENOA TWP.

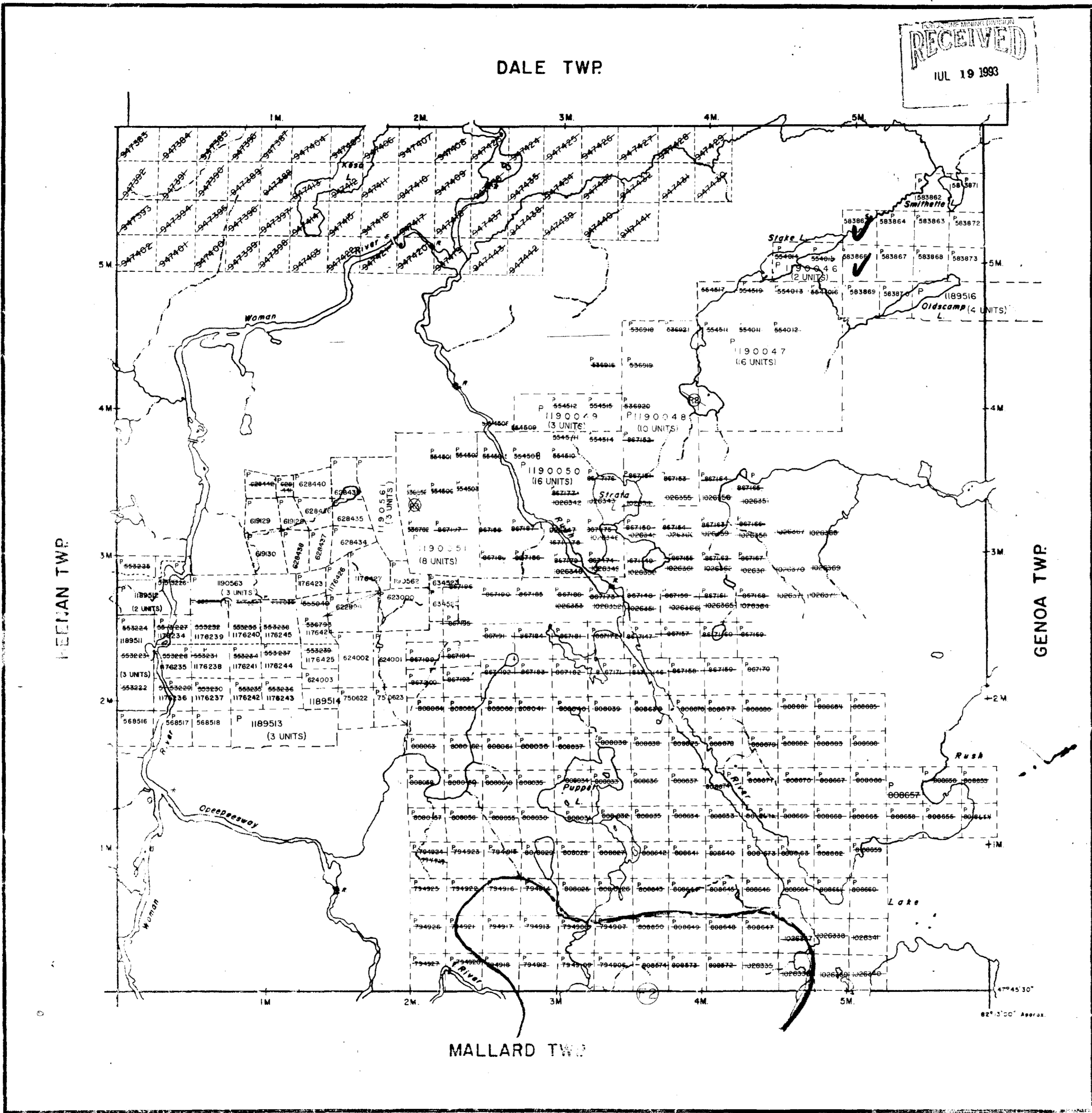
G-1131



410165E9070 2.15108 MARION

DALE TWP.

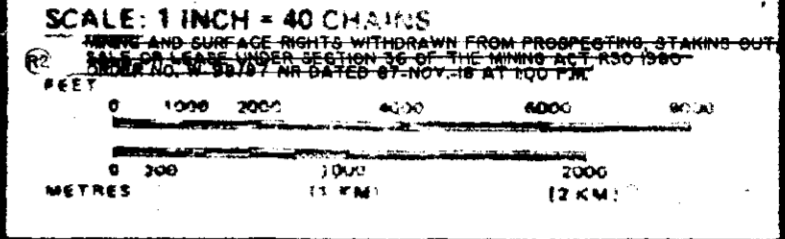
RECEIVED
JUL 19 1993



AREAS WITHDRAWN FROM DISPOSITION

- M.R.O. - MINING RIGHTS ONLY
- S.R.O. - SURFACE RIGHTS ONLY
- M.+S. - MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File
MINING AND SURFACE RIGHTS WITHDRAWN FROM PROSPECTING, STAKING OUT, SALE OR LEASE UNDER SECTION 36 OF THE MINING ACT RSO 1990				
(R3) SURFACE AND MINING RIGHTS REOPENED TO PROSPECTING, STAKING OUT, SALE OR LEASE UNDER SECTION 36 OF THE MINING ACT RSO 1990				
EFFECTIVE 90-NOV-03 AT 7 AM E.S.T.				
ORDER NO. O-P 6130 NR DATED 90-OCT-22				



LEGEND

- PATENTED LAND (P)
- CROWN LAND SALE (C.S.)
- LEASES (L)
- 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 PATENTED S.R.O.
- LAND USE PERMIT

(R) THIS TWP. IS SUBJECT TO FOREST ACTIVITY IN 1993/94. FURTHER INFORMATION ON FILE.

NOTES

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

(R) MINING AND SURFACE RIGHTS WITHDRAWN FROM PROSPECTING, STAKING OUT, SALE OR LEASE UNDER SECTION 36 OF THE MINING ACT RSO 1990

ORDER NO. W-1077 NR DATED 87-FEB-3 (P-555037 TO 039 INCL)

(F) THIS TWP. IS SUBJECT TO FOREST ACTIVITY IN 1992/93. FURTHER INFORMATION AVAILABLE ON FILE.

(R) MINING AND SURFACE RIGHTS RE-OPENED TO PROSPECTING, STAKING OUT, SALE OR LEASE UNDER SECTION 36 OF THE MINING ACT RSO 1990

EFFECTIVE 90-MAY-03 AT 7 AM E.S.T.

ORDER NO. O-P 07130 NR DATED 90-OCT-22

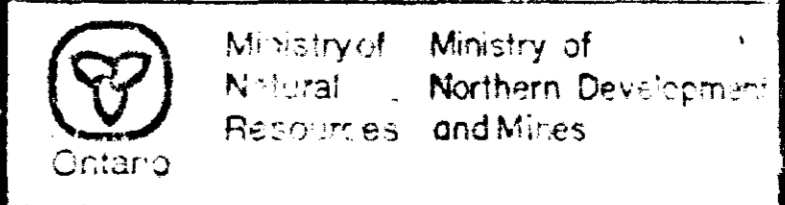
TOWNSHIP OF MARIO

M.N.R. ADMINISTRATIVE DISTRICT

CHAPLEAU (R) SURFACE AND MINING RIGHTS RE-OPENED TO PROSPECTING, STAKING OUT, SALE OR LEASE UNDER SECTION 35 OF THE MINING ACT, RSO 1990 EFFECTIVE 92-MAY-03 AT 7:00 AM E.S.T. ORDER NO. P-1192, NR DATED 92-APR-15

MINING DIVISION PORCUPINE

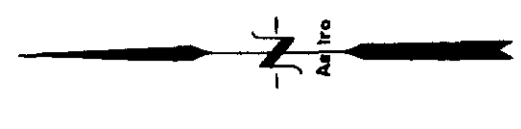
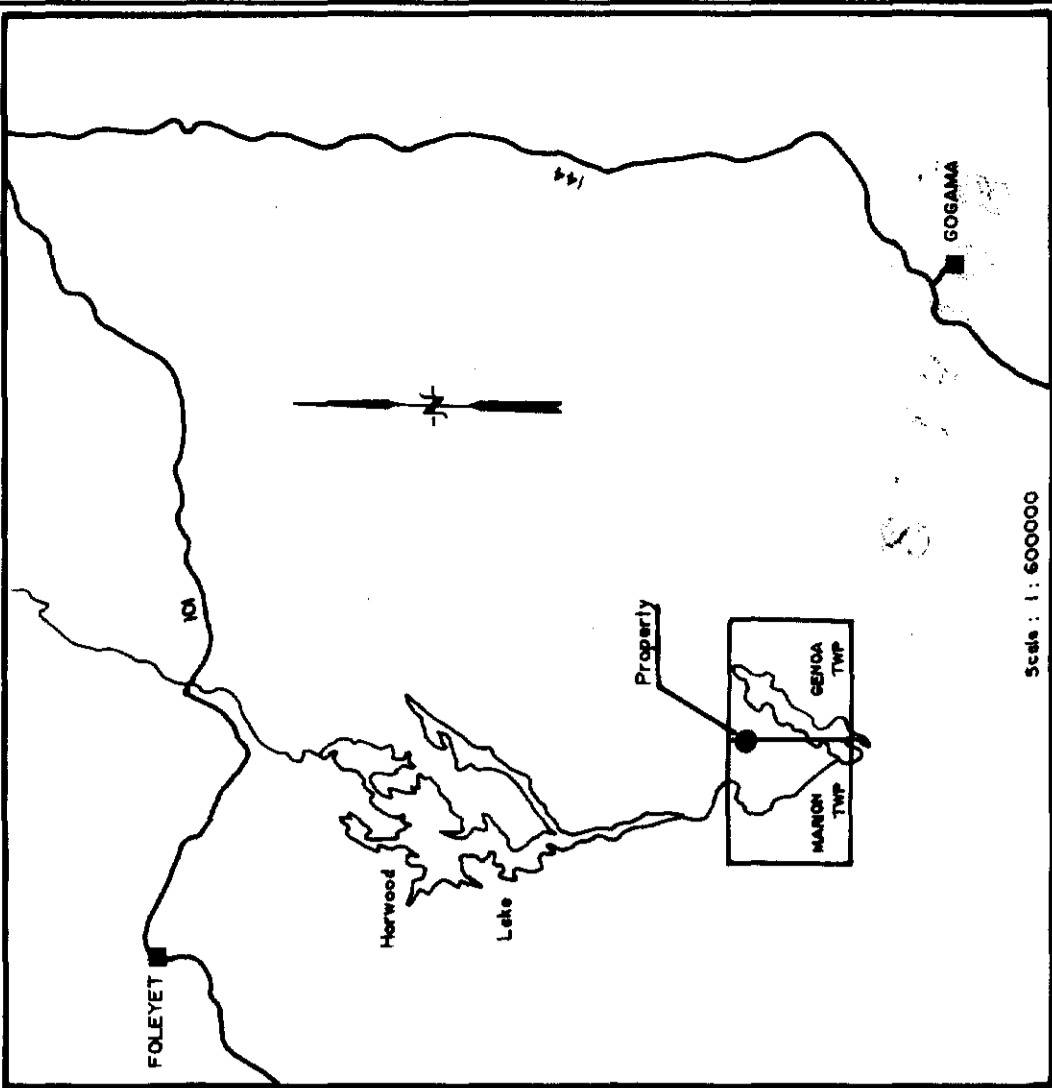
LAND TITLES / REGISTRY DIVISION SUDBURY



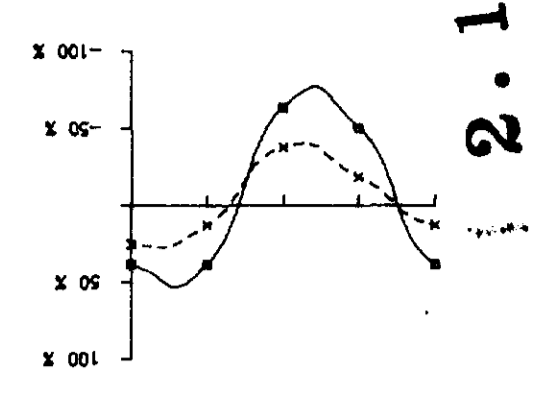
Date: JULY 1993
 Number: G-1174

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.





Instrument : Apex Parametrics MaxMin I-5
 Coil Separation : 100 m
 Frequency : 444 Hz
 Profile Scale : 1cm = 50%



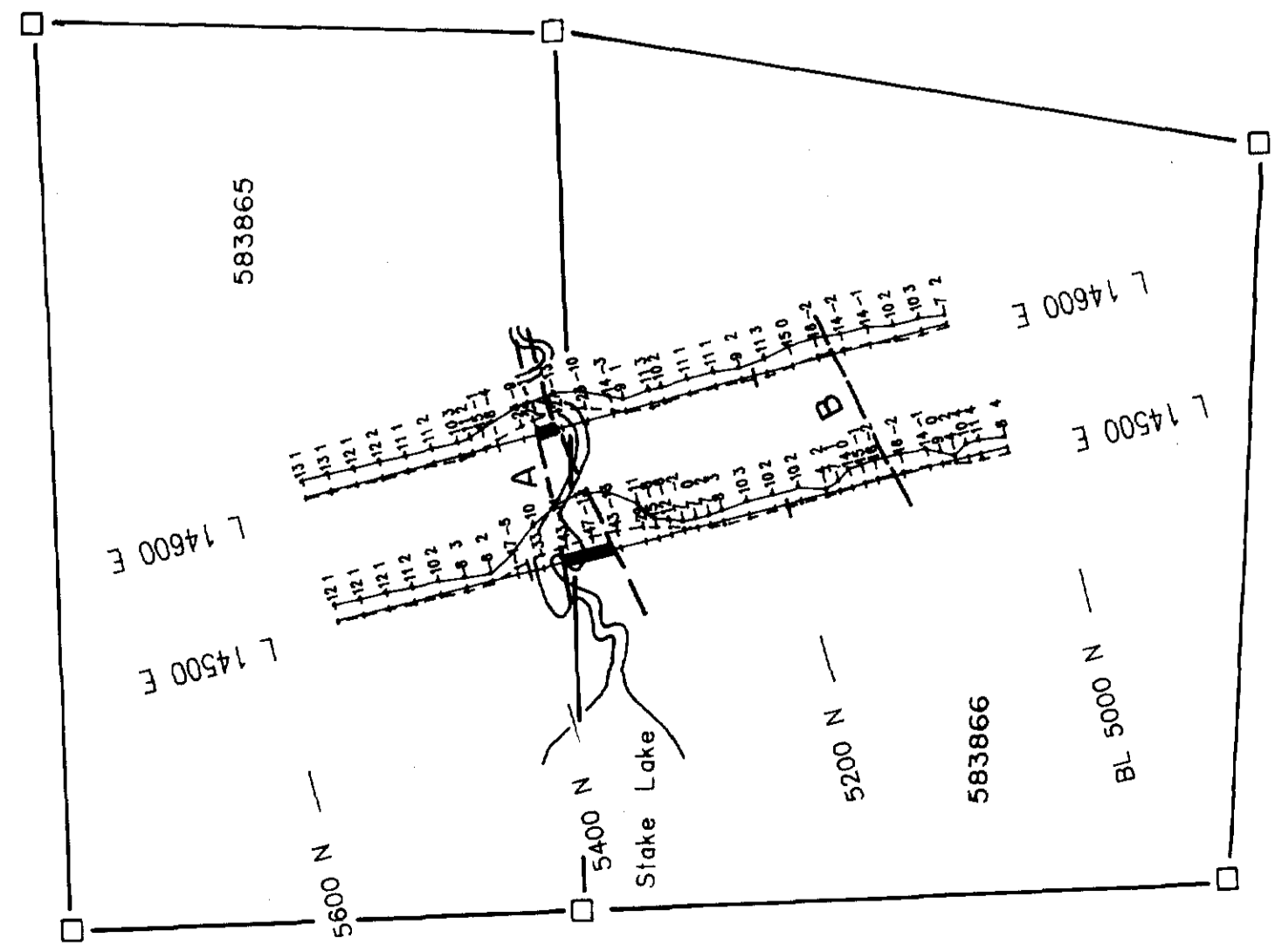
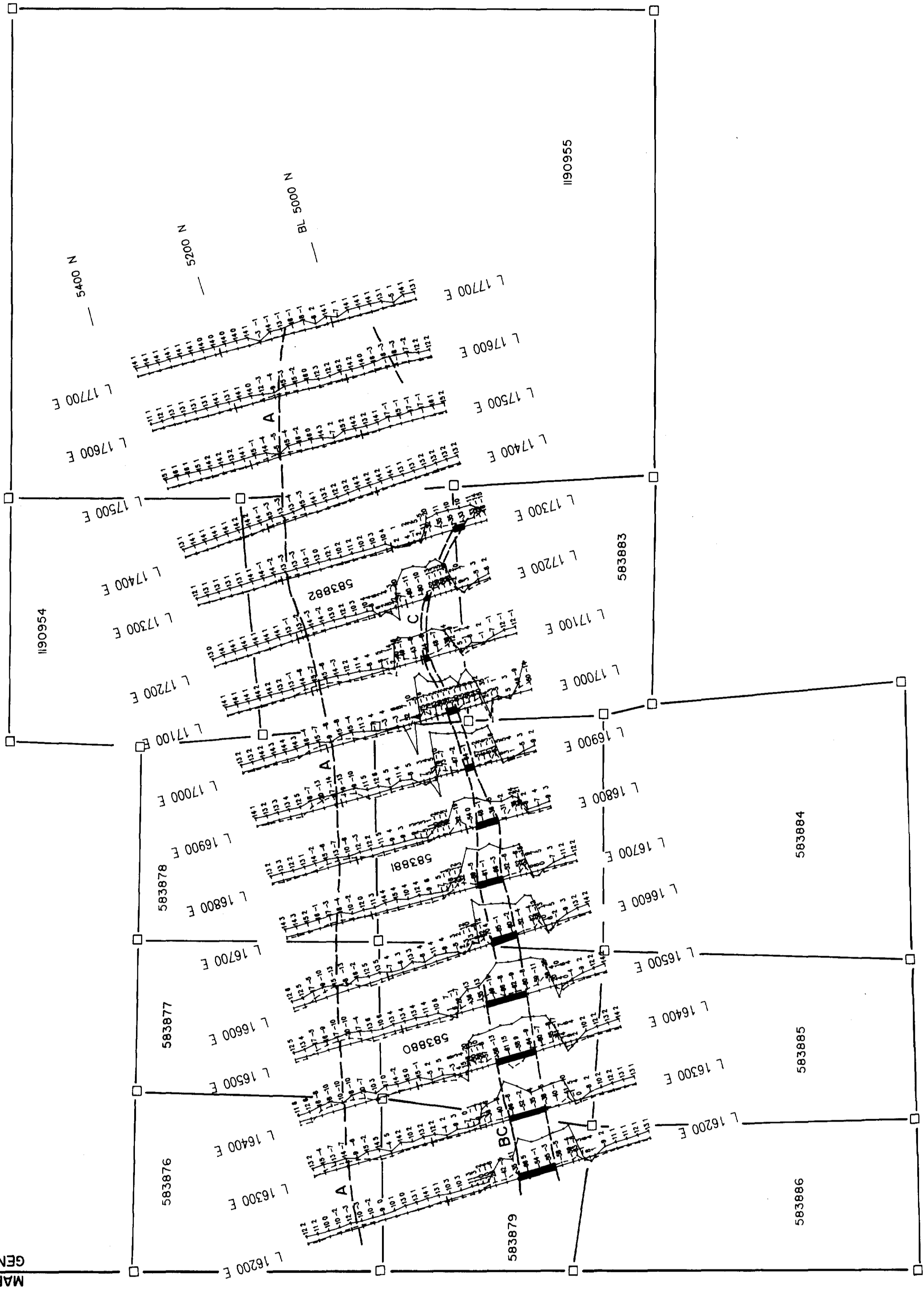
In-phase
 Quadrature

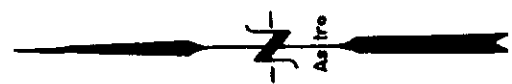
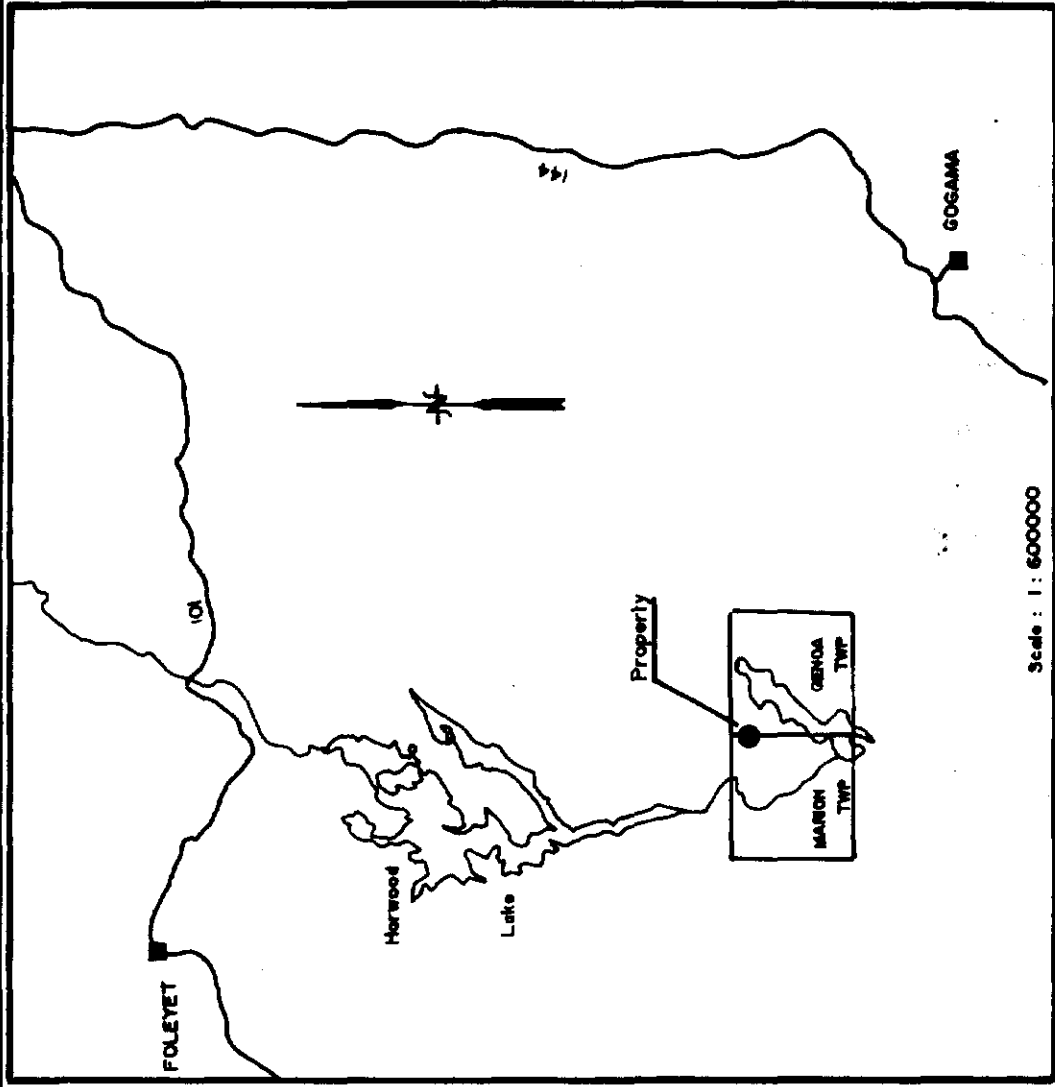


FALCONBRIDGE LIMITED
 HLEM SURVEY
 GENOA & MARION TOWNSHIP CLAIMS

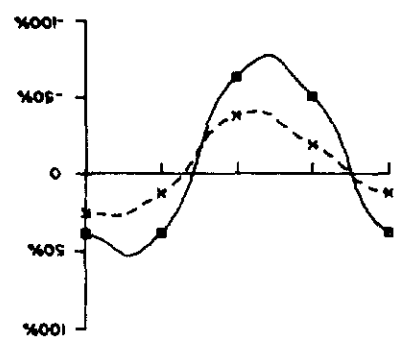
NTS : 4I-O/16 PROJ # 8668
 SCALE : 1: 5000 DATE : MAY 1993
 FILE : GEN.HL
 WORK BY : Timmins Geophysics Ltd.

MARION TOWNSHIP
 GENOA TOWNSHIP

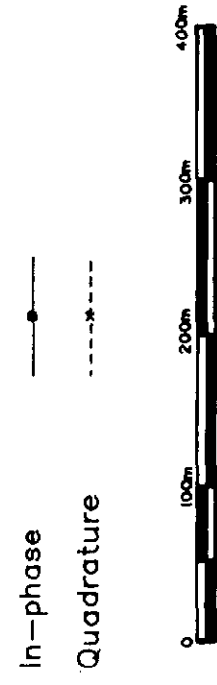




Instrument : Apex Parametrics MaxMin I-S
 Coil Separation : 100 m
 Frequency : 1777 Hz
 Profile Scale : 1cm = 50%

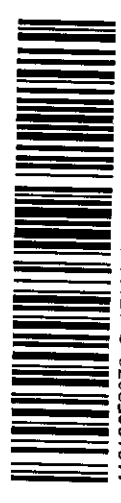
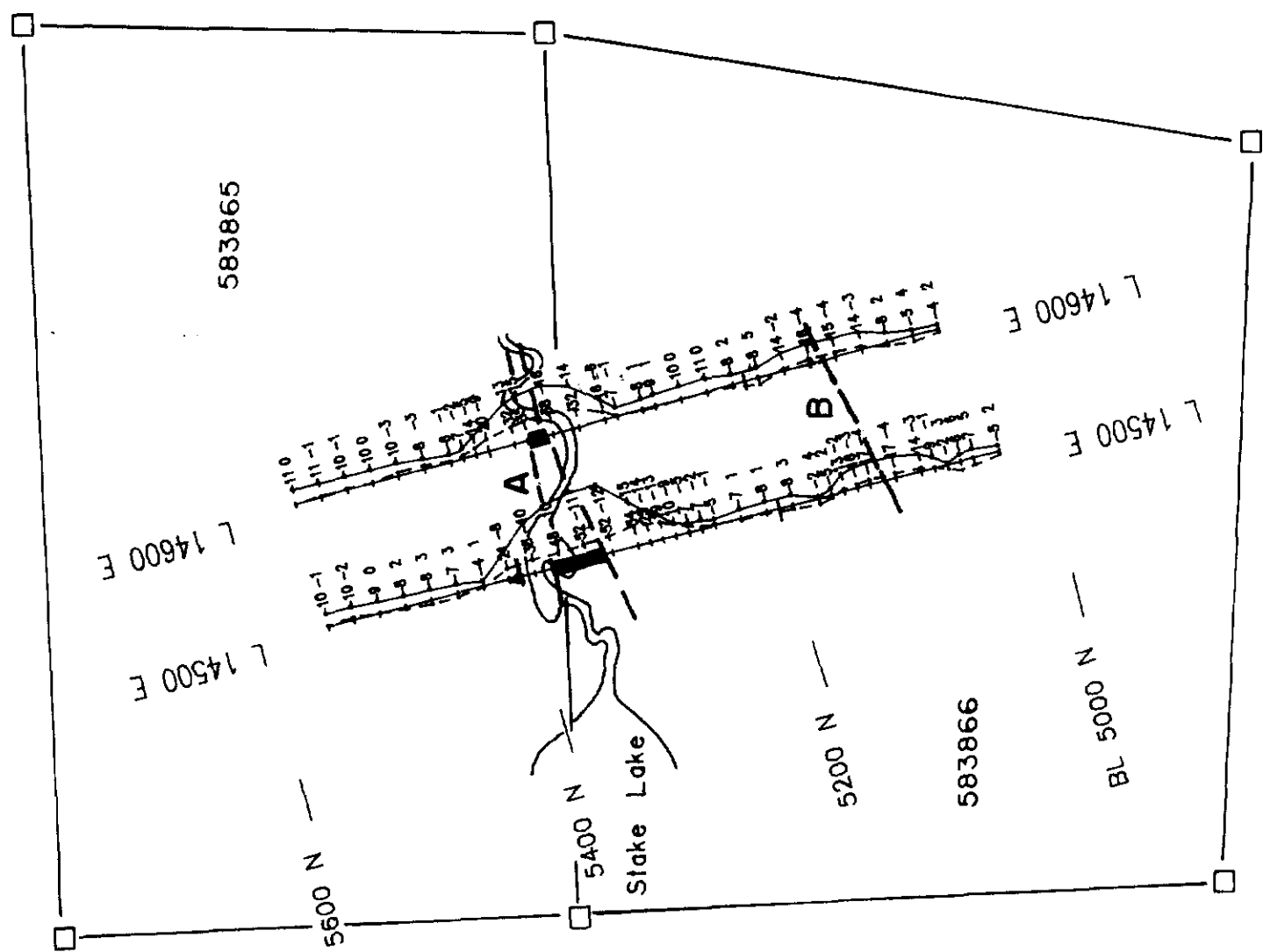
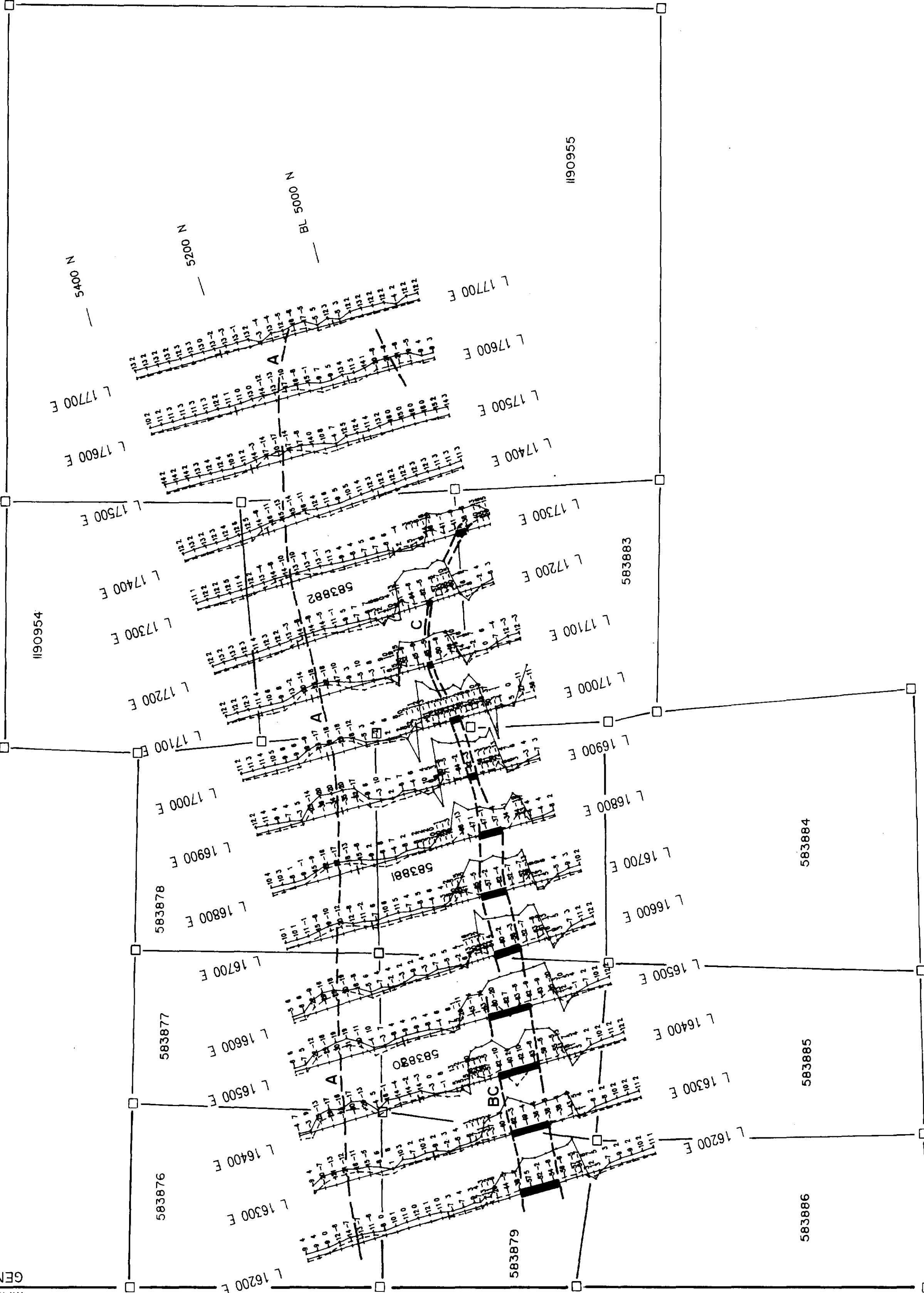


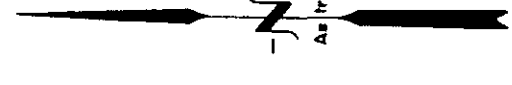
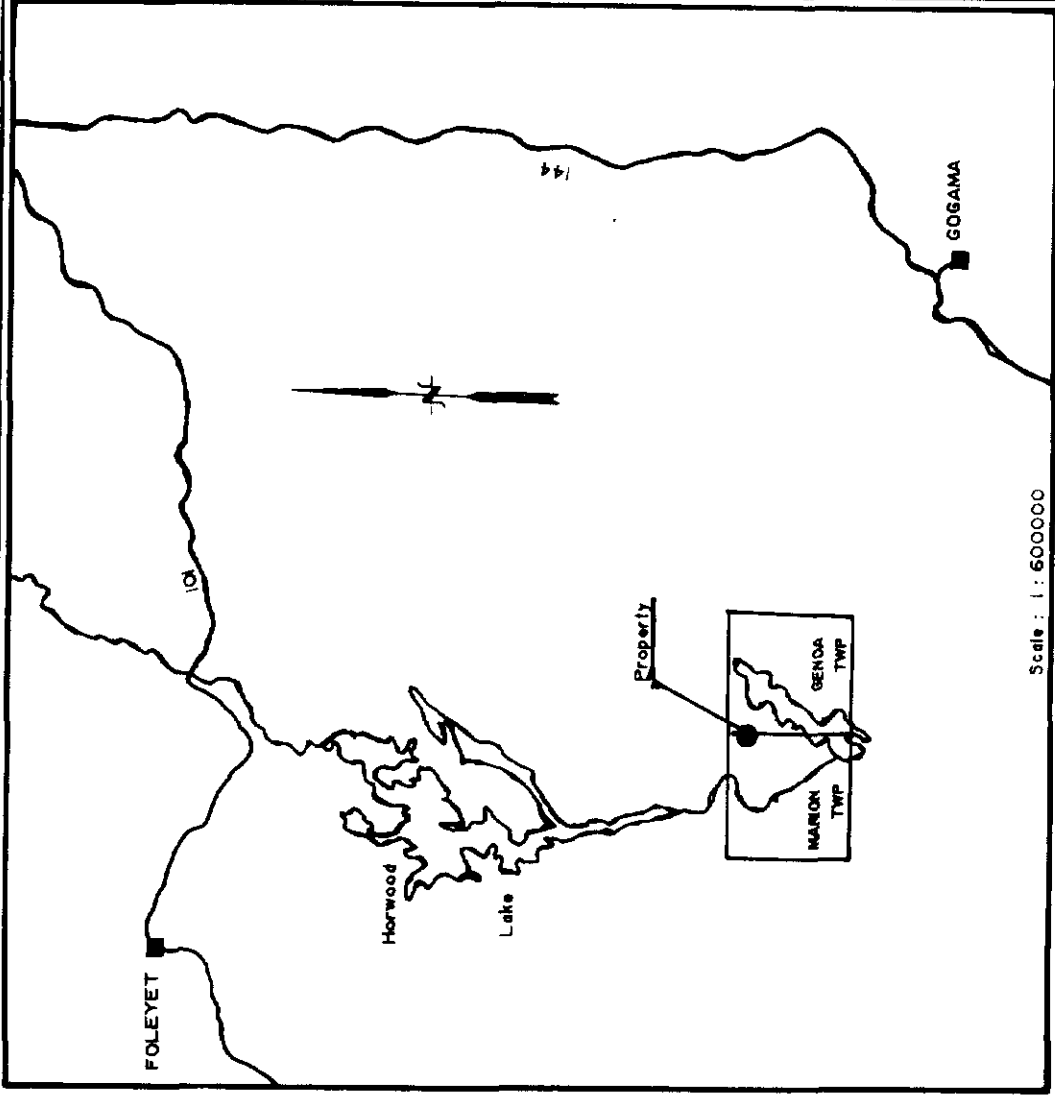
2.15108



FALCONBRIDGE LIMITED	
HLEM SURVEY	
GENOA & MARION TOWNSHIP CLAIMS	
NTS : 4I-O/16	PROJ # 8668
SCALE : 1: 5000	DATE : MAY 1993
FILE : GEN.HL	
WORK BY :	Trimmins Geophysics Ltd.

MARION TOWNSHIP
 GENOA TOWNSHIP





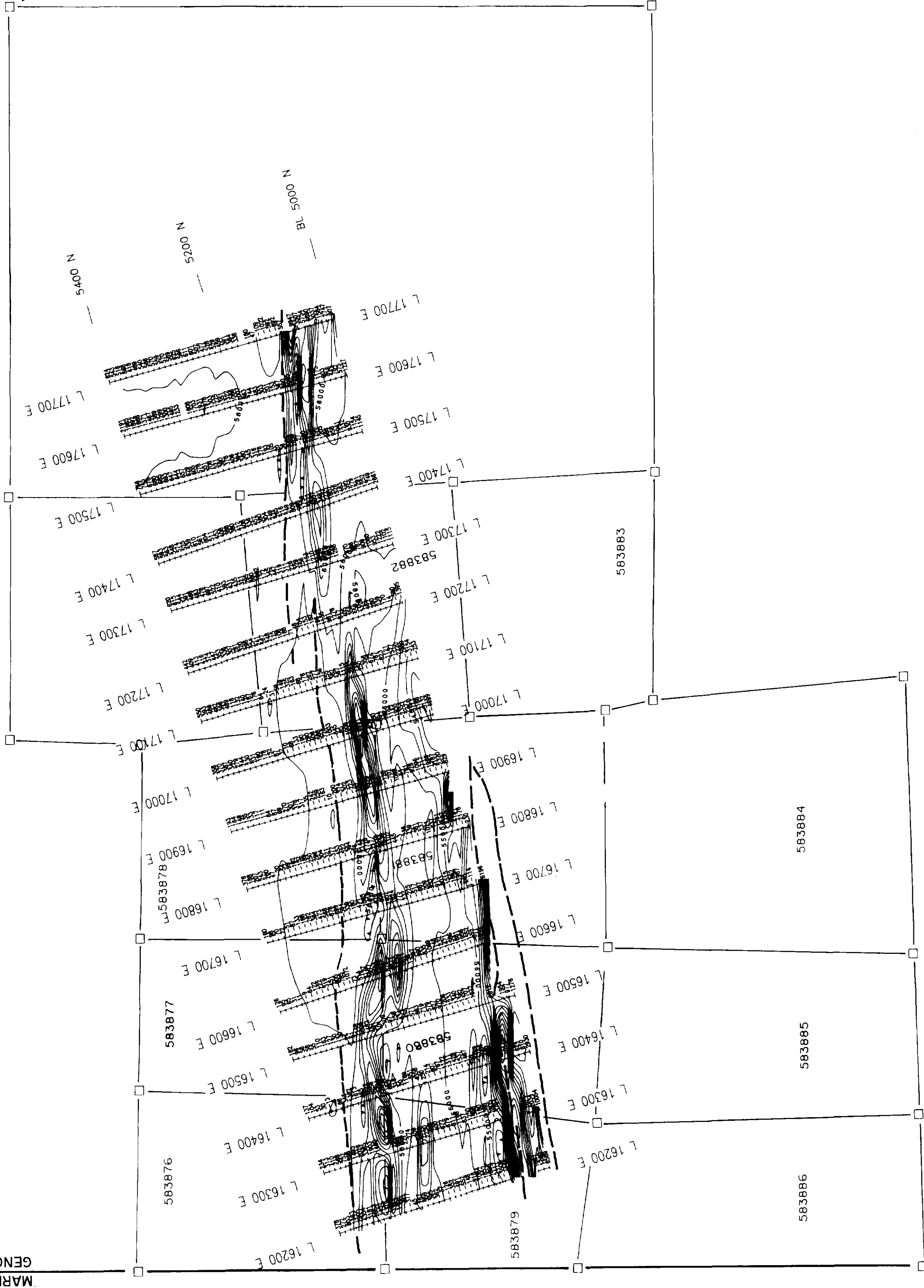
Instrument : Scintrex IS-2/MP-4
 Type : Total Field Proton Precession
 Datum Level : 57000 nT
 Contour Interval : 1000 nT
 Gridded By : Geosoft BIGRID
 Cell Size : 10 m
 --- VLF Anomaly
 □ Claim Post

2.15108

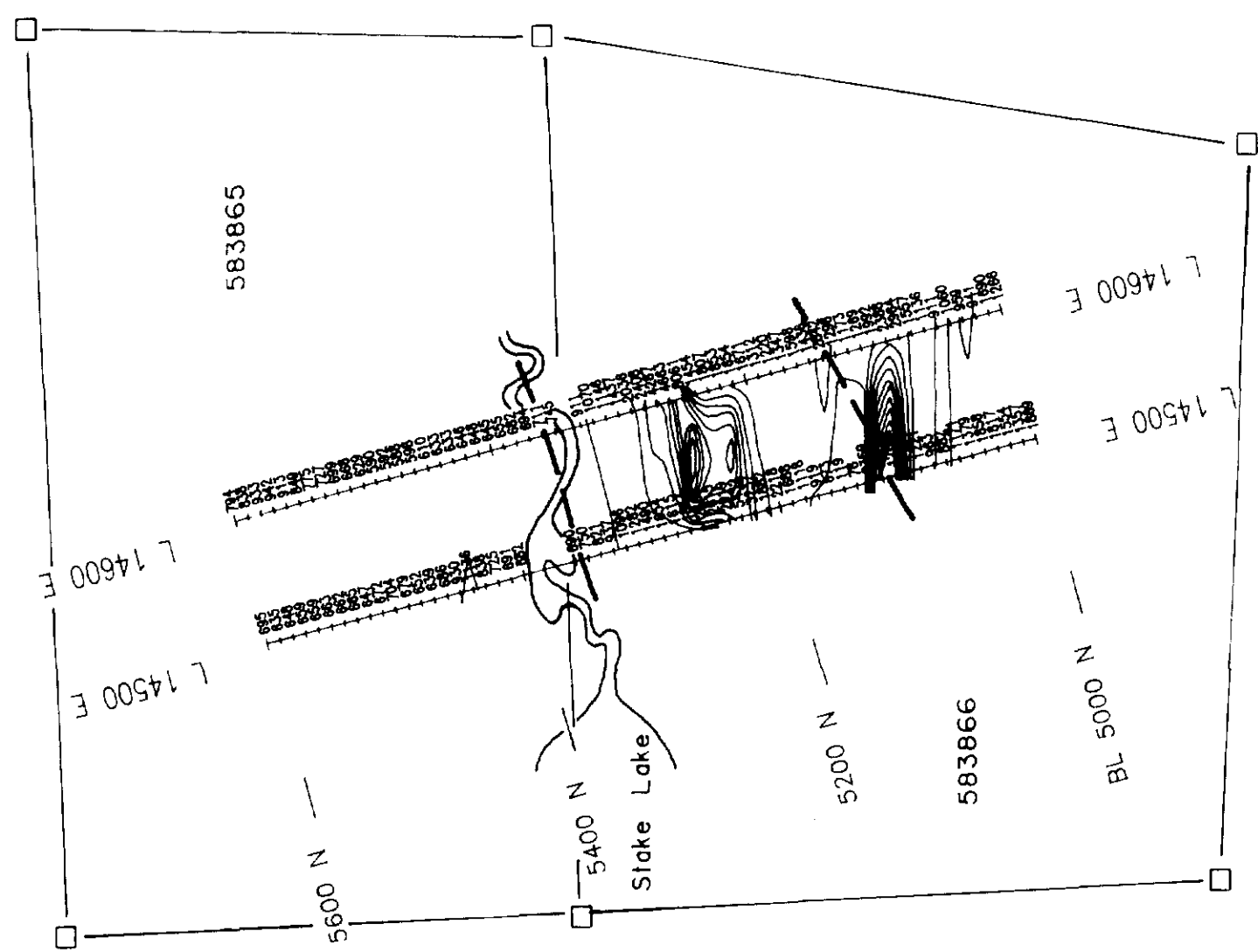


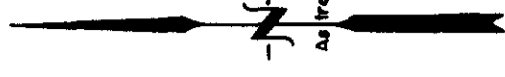
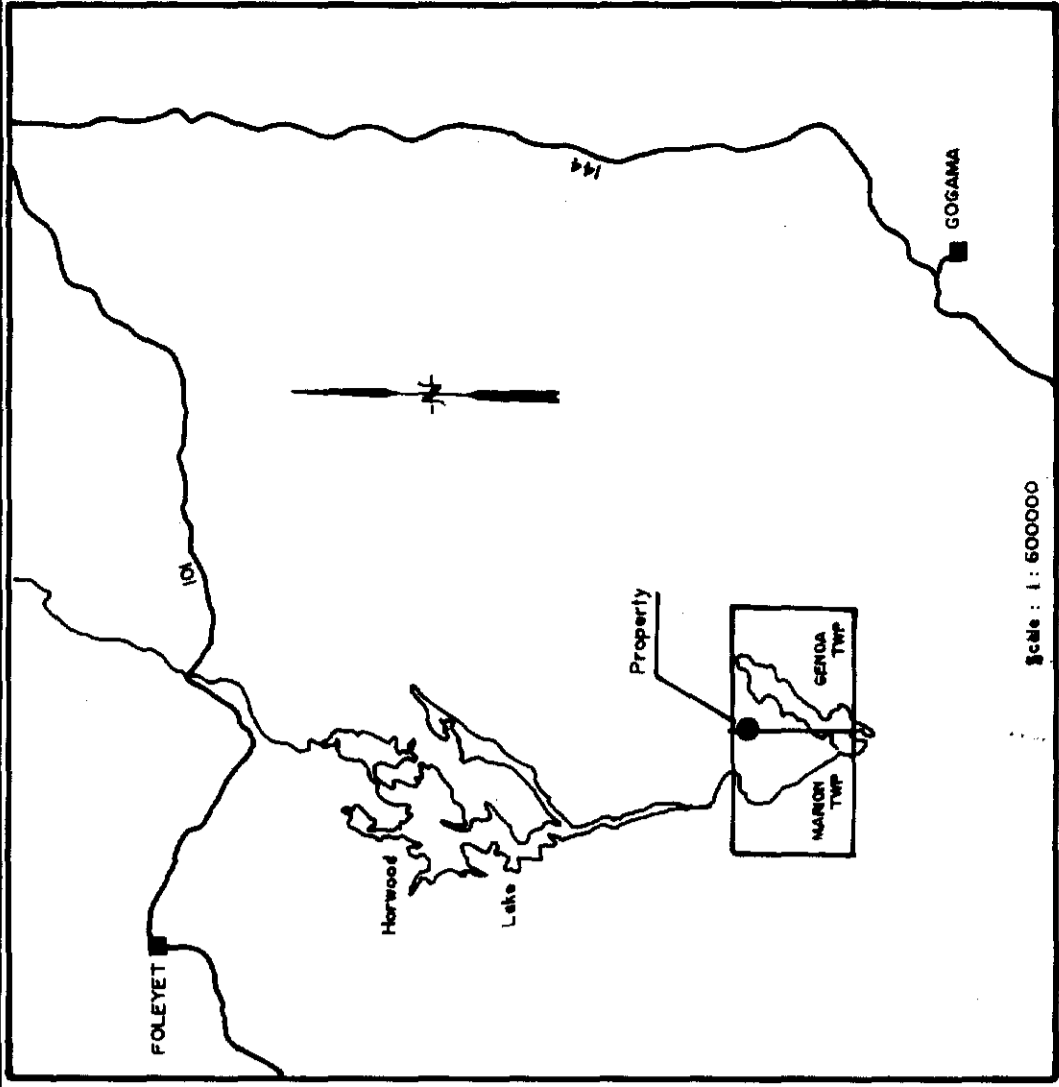
FALCONBRIDGE LIMITED
 MAGNETIC SURVEY
 GENOA & MARION TOWNSHIP CLAIMS

NTS : 41-0/16 PROJ # 8668
 SCALE : 1:5000 DATE : MAY 1992
 FILE : GEN.MAG
 WORK BY : *[Signature]*
 Timmins Geophysics Ltd.

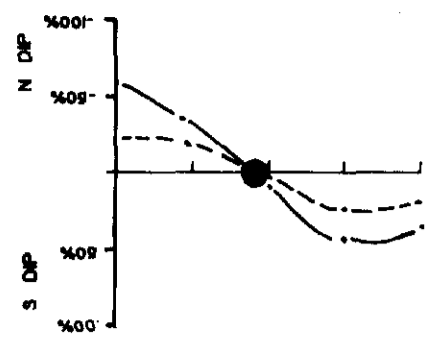


MARION TOWNSHIP
 GENOA TOWNSHIP





Instrument : Crone Radem
 Tx Station : Cutler Maine
 Frequency : 24.0 kHz
 Profile Scale : 1cm = 50%



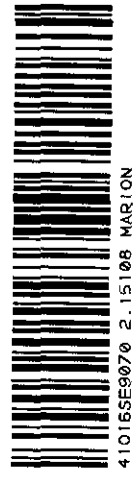
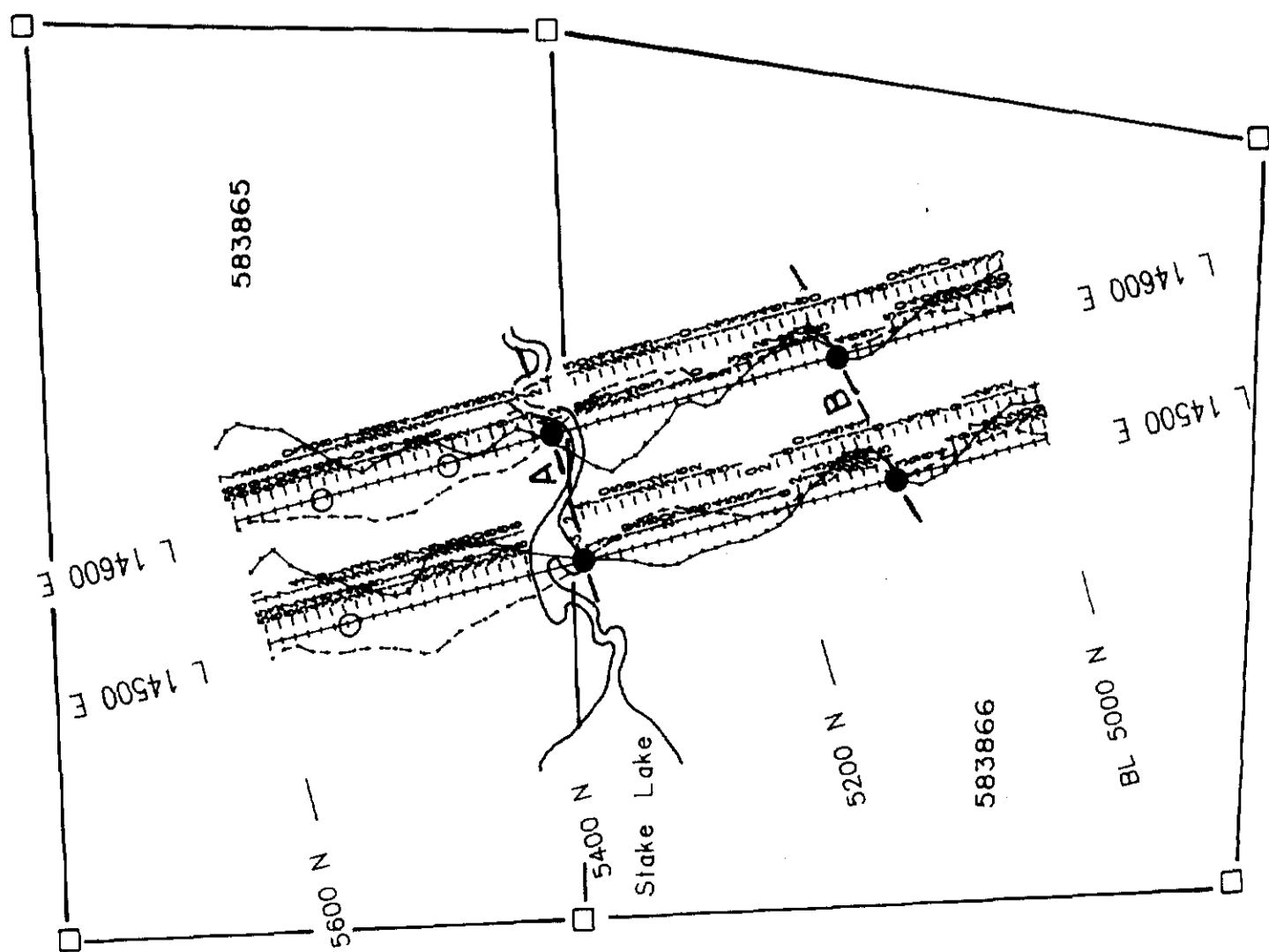
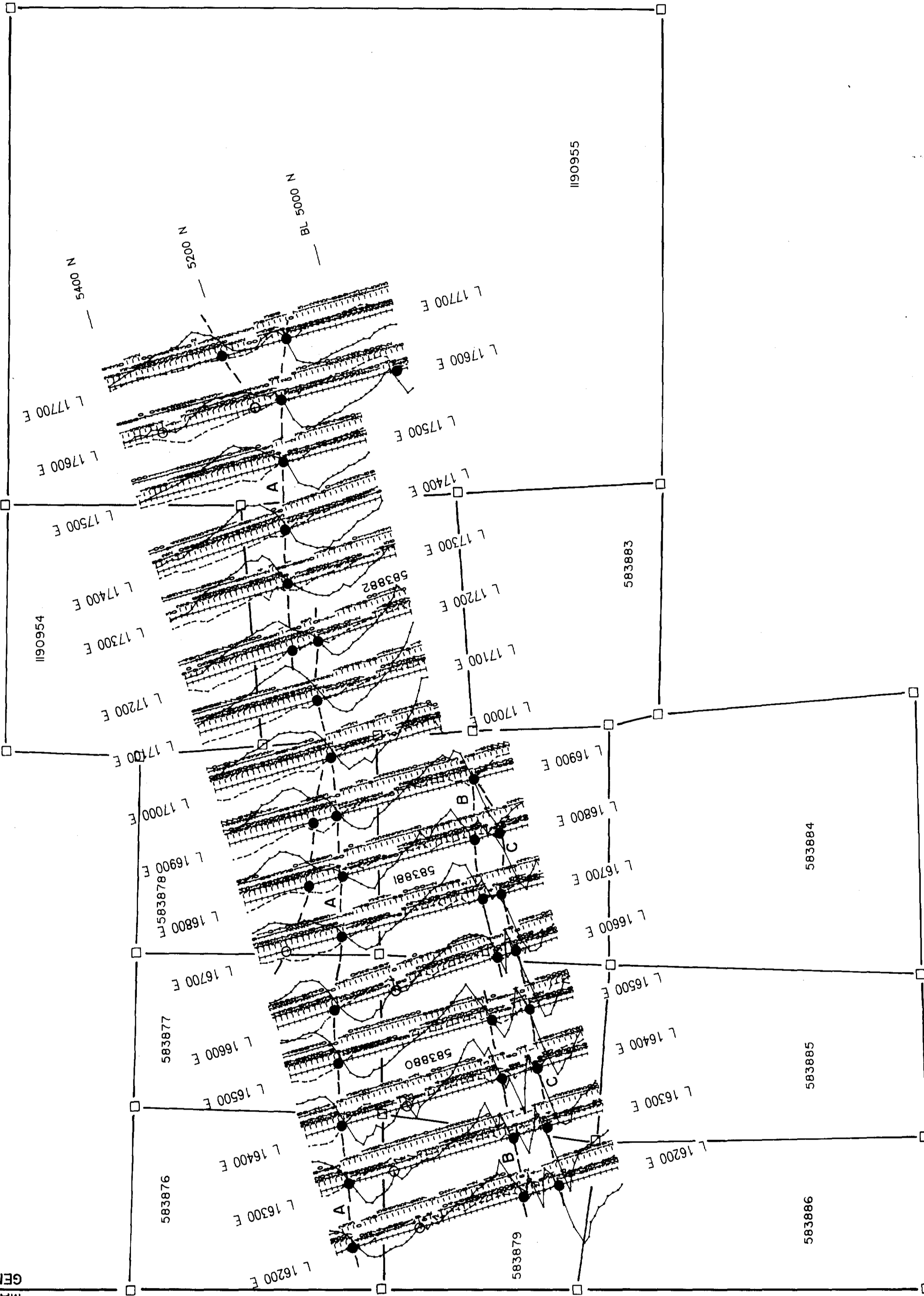
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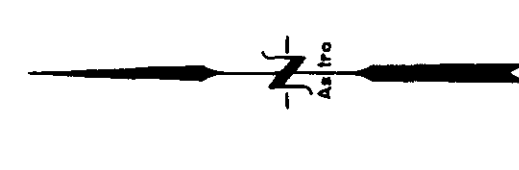
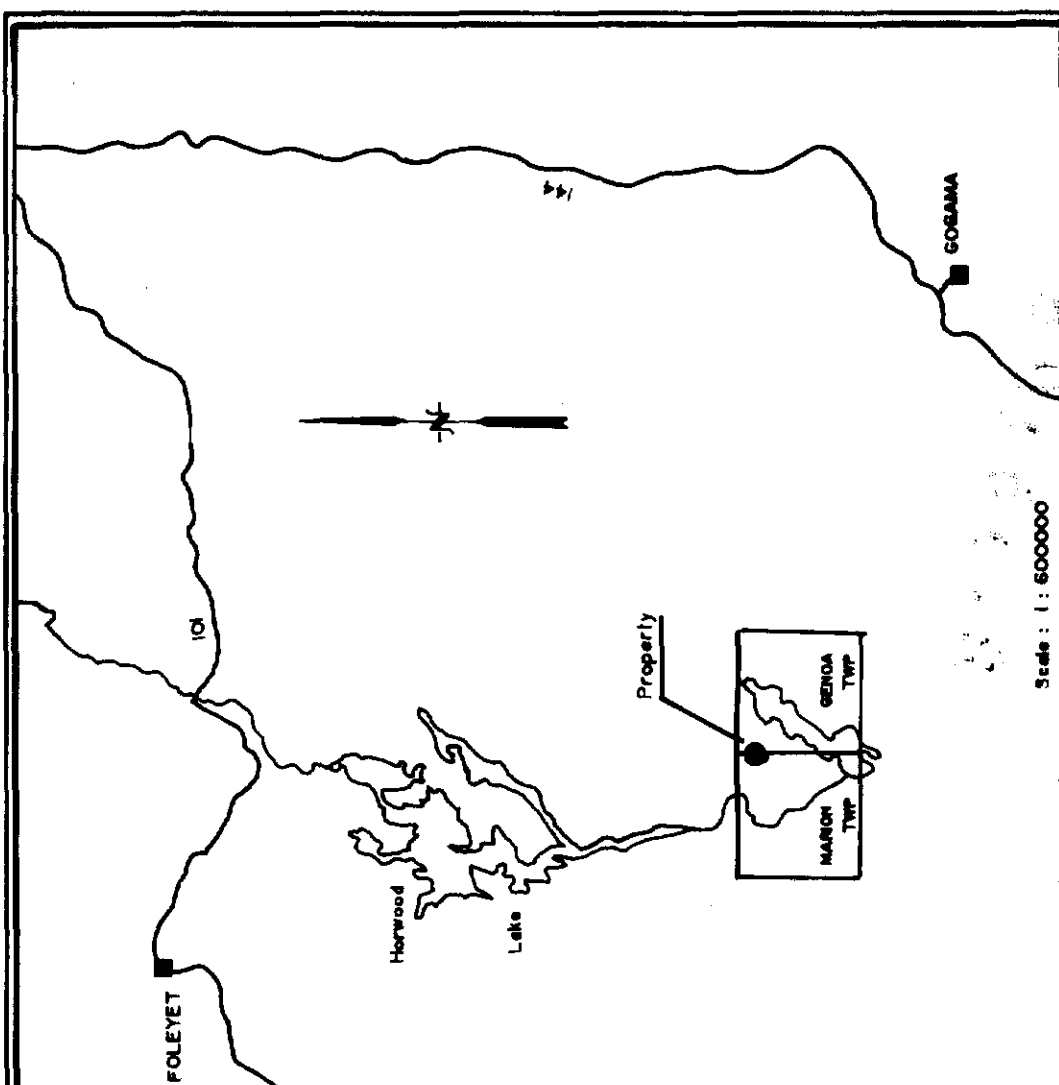
In-Phase
 Quadrature



FALCONBRIDGE LIMITED	
VLF SURVEY	
GENOA & MARION TOWNSHIP CLAIMS	
NTS : 41-0/16	PROJ # 8668
SCALE : 1: 5000	DATE : MAY 1993
FILE : GEN.VLF	WORK BY : <i>[Signature]</i>
Timmins Geophysics Ltd.	

MARION TOWNSHIP
 GENOA TOWNSHIP





Instrument : Crone Radem
 Tx Station : Cutler Maine
 Frequency : 24.0 kHz
 Contour Interval : 20%
 Claim Post

2.15108



FALCONBRIDGE LIMITED
VLF SURVEY (Fraser Filtered)
 GENOA & MARION TOWNSHIP CLAIMS

NTS : 4I-O/16 PROJ # 8668
 SCALE : 1: 5000 DATE : MAY 1993
 FILE : GEN.VLF
 WORK BY : *[Signature]*
 Timmins Geophysics Ltd.

MARION TOWNSHIP
 GENOA TOWNSHIP

