



42A12SW0202 2.8252 COTE

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Mountain Frontier Explorations Ltd

Geophysical Surveys  
Côté Township Property  
Porcupine Mining Division  
Ontario

**RECEIVED**

JUL 03 1985

**MINING LANDS SECTION**

by: Wayne Edward Holmstead  
Geocom Consulting

*quad 2.5787*

Introduction

The eight claims containing the Lusikauf gold occurrence are located in Cote Township, about 35 km northwest of Timmins and 35 km southwest of the Kidd Creek Mine in the Porcupine Mining Division.

The claims are numbered as follows;

P804538	
804539	804580
804540	804581
804541	

The above claims are held by;

Mountain Frontier Explorations Ltd.  
402-27 Queen St. E.  
Toronto, Ontario, M5C 2M6.

Claim numbers 829175, 76 were staked just before the surveys were done and are presently held in trust for Mountain Frontier by;

Wayne Holmstead  
116 Niagara St.  
Kirkland, PQ, H9J 3B6

Property, Description and Accessibility

Cote Township is located on the northwest boundary of the Porcupine gold mining camp in the Abitibi subprovince.

Bedrock exposure is good in the vicinity of the property but is much poorer in surrounding areas where swamp predominates.

Access to the property is gained by helicopter from Timmins or a network of logging roads that depart from Highway 101 about 30 km southwest of Timmins. The logging roads approach to within about 3 km of the property. In the winter the property is easily accessible by skidoo.

All services including diamond drilling are available in Timmins nearby.

### History and Previous Work

For a complete summary of previous work done on the Lusikauf gold property refer to Table I.

The gold showing was first discovered by a prospector named Lusikauf in 1927. He reported the following gold values in 5 trenches on the south vein;

0.50 oz/ton	over	4.0 feet
0.03	"	7.0 "
0.02	"	3.5 "
0.05	"	1.2 "
0.06	"	1.8 "
0.07	"	2.7 "

On the north vein (20 m northwest and parallel to south vein) he reported 0.06 oz/ton over 12 feet and on an additional gold showing 450 m to the west he reported 0.04 over 4 feet and 0.07 over 3 feet.(Lusikauf, 1927)

The property was optioned to Hollinger Mines in 1928 and they proceeded to drill two holes (235 feet) the results of which are not available at this time.(Graham, 1931)

In 1931, A. R. Graham mapped the area for the Ontario Dept. of Mines and reported gold values of 0.17 to 1.2 oz/ton from the Lusikauf gold showing.

Dominion-Gulf mapped and conducted geophysical surveys on the property in 1955. No assays were reported from the showing.

In the 1960's with the Kidd Creek staking rush, McIntyre-Porcupine and Mespi Mines seperately conducted various air and ground geophysical surveys in and around the property. These surveys yeilded only weak anomalies.

In 1976, Mattagami Lake Mines conducted additional ground geophysical surveys and detected one interesting conductor about 1 km northeast of the Lusikauf showing. On drilling the conductor in 1977 low gold values were detected within sulphide-magnetite seams.

Table I: Summary of Previous Work on the Lusikauf Gold Property

<u>Date</u>	<u>Company</u>	<u>Work</u>	<u>Results</u>
1927	Lusikauf	trenching	see text page 3
1928	Hollinger Mines	diamond drilling (235 ft)	results unknown
1931	A. R. Graham ODM	geological mapping	0.17 to 1.2 oz/ton gold
1955	Dominion- Gulf	mapping magnetometer electromagnetic	no assays reported
1964	McIntyre- Porcupine	airborne magnetic electromagnetic	5 poor anomalies detected
1966	Mespi Mines	ground electromagnetic	no conductors
1976	Mattagami Lake	ground magnetic electromagnetic	one conductor detected
1977	Mattagami Lake	diamond drilling (1613 ft, 2 holes)	0.001 to 0.006 oz/ton over 0.5 to 12.5 ft

## Geology

The geology of Cote Township is best covered by ODM Map P.840 at a scale of 1:15840. Other maps that cover the area are ODM Map 2205 (1972) of the Geological Compilation Series and ODM Map 40c (Graham, 1930).

The geology of the township is dominated by an east-west striking, chlorite-sericite schist in the central portion of the township bounded on the north and south by granitic rocks. The fine grained schist contains minor iron formation and is intruded by gabbro plugs and diabase dikes. In the vicinity of the Lusikauf showing the country rock was found to be a carbonate-sericite schist, likely the alteration product of a porphyry dike intruding the gabbro.

Faulting and shearing in the area is evidenced by the schistose nature of the volcanic rocks and is generally in an east-west direction.

Surveys

A magnetic survey and VLF-EM survey were completed on the property from March 1 to 18, 1985. The work was done by;

Geocom Consulting

116 Niagara St.

Kirkland, PQ

A total of 12 miles of line was surveyed at a line spacing of 400 ft and station intervals of 50 ft.

The magnetometer survey was done with a Scintrex MP-2 Proton Magnetometer which has a reported accuracy of 1 gamma. Base stations were established along the base-line and the readings were corrected for diurnal variation. The results were plotted and contoured on Map #1.

The VLF-EM survey was done with a Geonics EM-16 using two frequencies, NSS Annapolis, Maryland with frequency 21.4 kHz and NAA Cutler, Maine with frequency 24.0 kHz. The results of the inphase and outphase readings were plotted and profiled on Map #2 for NSS and Map #3 for NAA.



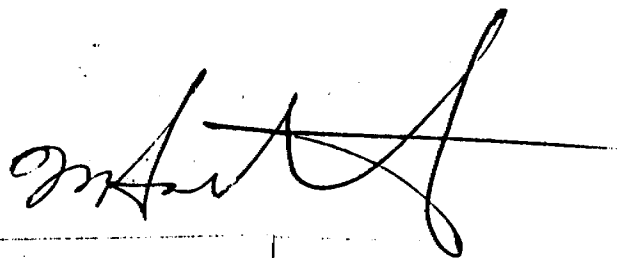
Results

The magnetometer survey revealed an area of above background readings between line 8W and line 40W and from stations 10S to 6N. Within this area two east-west bands of anomalous readings were evident at about the baseline and 2+00N. These bands were subsequently found to be due to iron formation within schistose volcanic rocks.

The VLF-EM surveys detected several anomalies that in all cases could be attributed to overburden effect. The anomalies occur where bedrock is in contact with thick, swampy overburden.

Recommendations

In light of the results of the work done on the Cote Township property, no further work is recommended at this time.



Wayne Edward Holmstead, B.Sc., FGAC



42A12SW0202 2.8252 COTE

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Type of Survey(s) <b>GEOPHYSICAL</b>		Township or Area <b>COTE TWP.</b>	
Claim Holder(s) <b>MOUNTAIN FRONTIER EXPLORATIONS</b>		Prospector's Licence No. <b>T-1888 ✓</b>	
Address <b>402-27 QUEEN ST E., TORONTO, ONT M5C 2M6</b>			
Survey Company <b>GECOM CONSULTING</b>		Date of Survey (from & to) Day   Mo.   Yr.   Day   Mo.   Yr.	Total Miles of line Cut <b>7.87 MILES</b>
Name and Address of Author (of Geo-Technical report) <b>WAYNE E. HOLMSTEAD 4334 MARLIN CRES. PIERREFONDS PQ H9H2K7</b>			

Credits Requested per Each Claim in Columns at right

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

Mining Claims Traversed (List in numerical sequence)

Mining Claim		Expend. Days Cr.	Mining Claim		Expend. Days Cr.
Prefix	Number		Prefix	Number	
<b>P</b>	<b>804538</b>				
	<b>804539</b>				
	<b>804540</b>				
	<b>804541</b>				
	<b>804580</b>				
	<b>804581</b>				

**RECEIVED**  
MAY 23 1985

**MINING LANDS SECTION**

Expenditures (excludes power stripping)

Type of Work Performed	
Performed on Claims	
Calculation of Expenditure Days Credits	
Total Expenditure	$\$ \text{ [ ] } \div 15 = \text{ [ ] }$

**RECORDED**  
MAY 7 1985  
Receipt No. *[Signature]*

Total number of mining claims covered by this report of work. **6**

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.

For Office Use Only	
Total Days Cr. Recorded <b>360</b>	Date Recorded <b>May 7 1985</b>
Date Approved as Recorded <b>85.7.17</b>	Mineral Director <i>[Signature]</i>

Date <b>MAY 3, 1985</b>	Recorded Holder or Agent (Signature) <i>[Signature]</i>
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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 <b>WAYNE E. HOLMSTEAD</b>	
Date Certified <b>MAY 3, 1985</b>	Certified by (Signature) <i>[Signature]</i>



**REGISTERED**

June 26, 1985

Report of Work #165/85

Mountain Frontier Explorations  
Suite 402  
27 Queen Street East  
Toronto, Ontario  
M5C 2M6

Dear Sirs:

RE: Geophysical (Electromagnetic & Magnetometer)  
Survey on Mining Claims P 804538, et al,  
in Cote Township

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I have not received the reports and maps (in duplicate)  
for the Geophysical (Electromagnetic & Magnetometer)  
Survey on the above-mentioned claims.

As the assessment "Report of Work" was recorded by the  
Mining Recorder on May 7, 1985 the 60 day period  
allowed by Section 77 of the Mining Act for the submission  
of the technical reports and maps to this office will  
expire on July 6, 1985.

If the material is not submitted to this office by July 6,  
1985, I will have no alternative but to instruct the Mining  
Recorder to delete the work credits from the claim record  
sheets.

For further information, please contact Mr. Arthur Barr  
at (416)965-4888.

Yours sincerely,

S.E. Yundt  
Director  
Land Management Branch

Whitney Block, Room 6643  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
Phone:(416)965-4888

A. Barr:mc

cc: Wayne E. Holmstead  
4334 Marlin Crescent  
Pierrefonds, Quebec  
H9H 2K7

cc: Mining Recorder  
Timmins, Ontario

Byers Twp. (M.265)

Fortune Twp. (M.813)

Enid Twp. (M.788)

Massey Twp. (M.296)

Robb Twp. (M.309)

THE TOWNSHIP OF
















CÔTÉ

DISTRICT OF COCHRANE

PORCUPINE MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

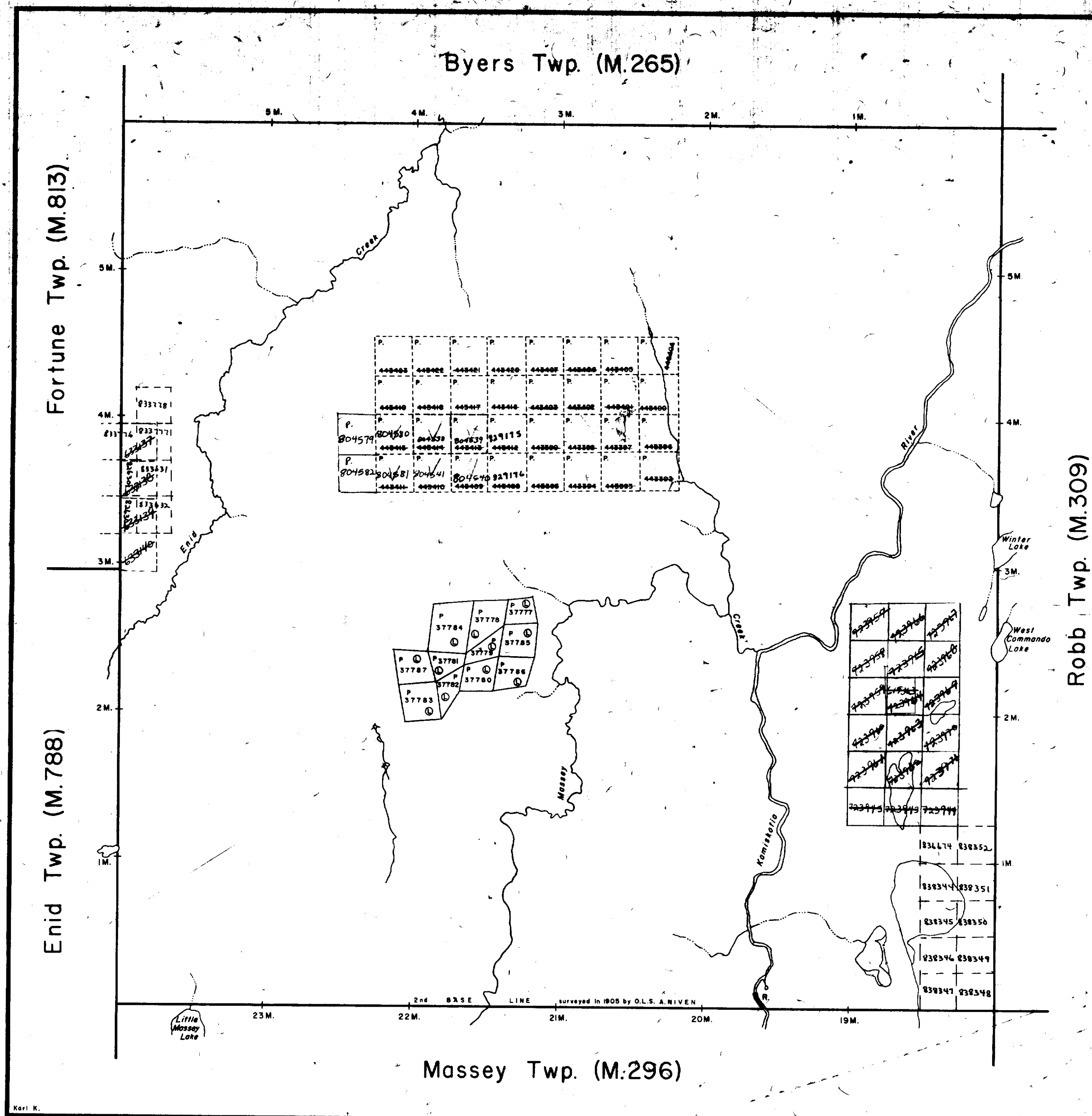
- PATENTED LAND 
- CROWN LAND SALE 
- LEASES 
- LOCATED LAND 
- LICENSE OF OCCUPATION 
- MINING RIGHTS ONLY 
- SURFACE RIGHTS ONLY 
- ROADS 
- IMPROVED ROADS 
- KING'S HIGHWAYS 
- RAILWAYS 
- POWER LINES 
- MARSH OR MUSKES 
- MINES 
- CANCELLED 

NOTES

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

PLAN NO. M-271

ONTARIO  
MINISTRY OF NATURAL RESOURCES  
SURVEYS AND MAPPING BRANCH

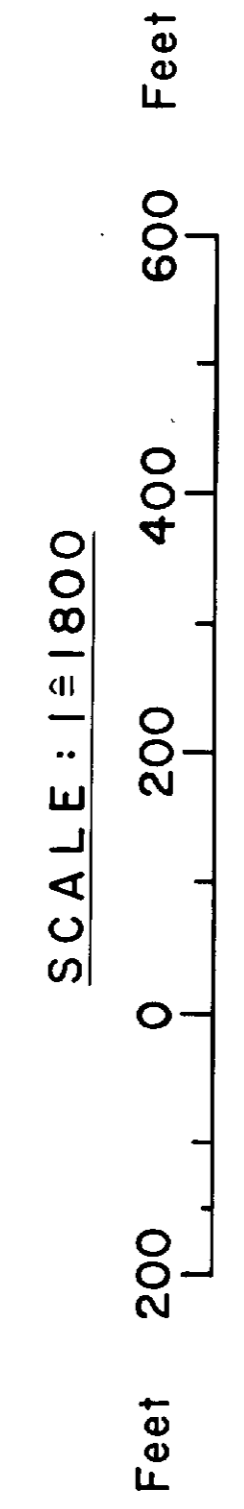
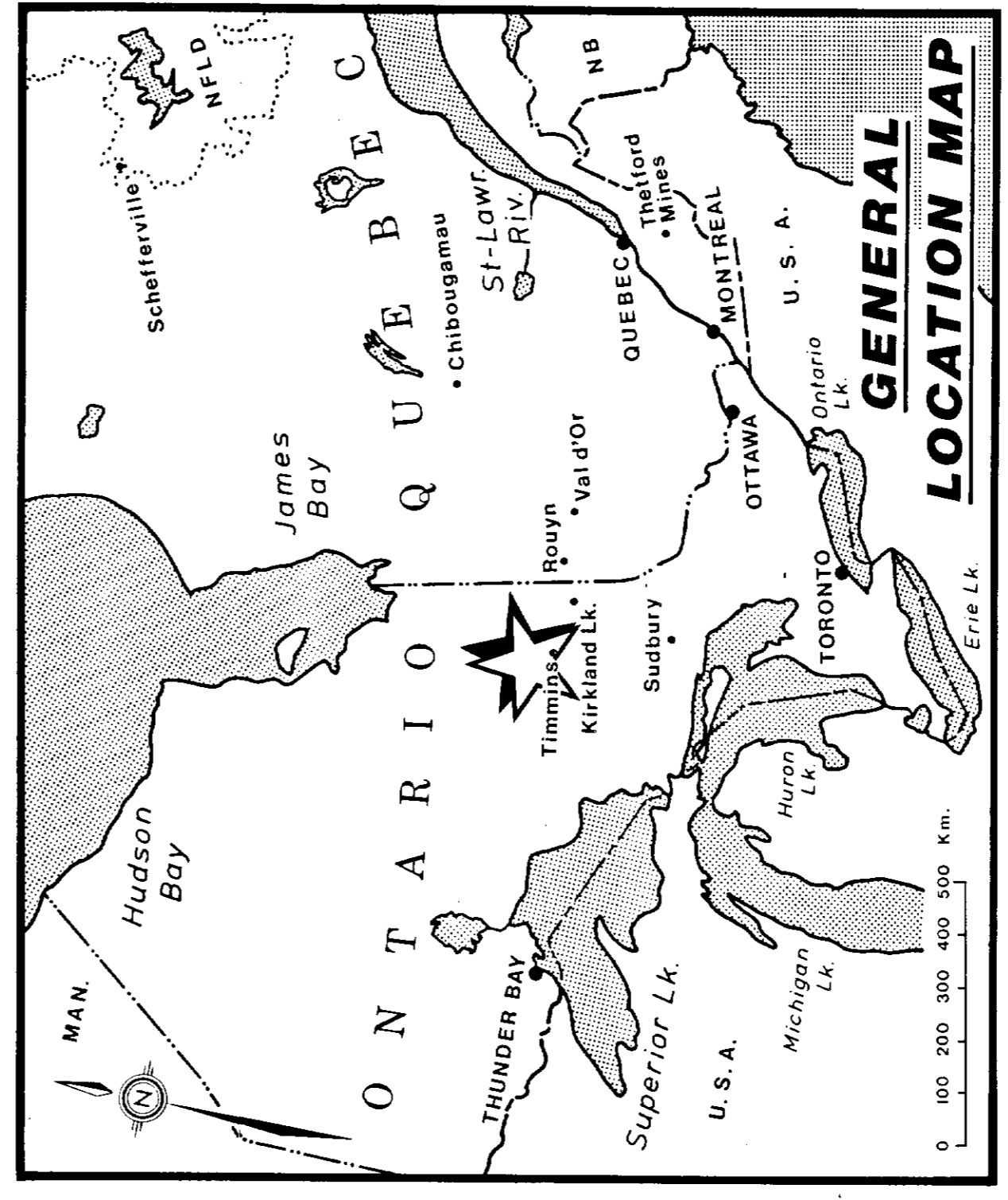
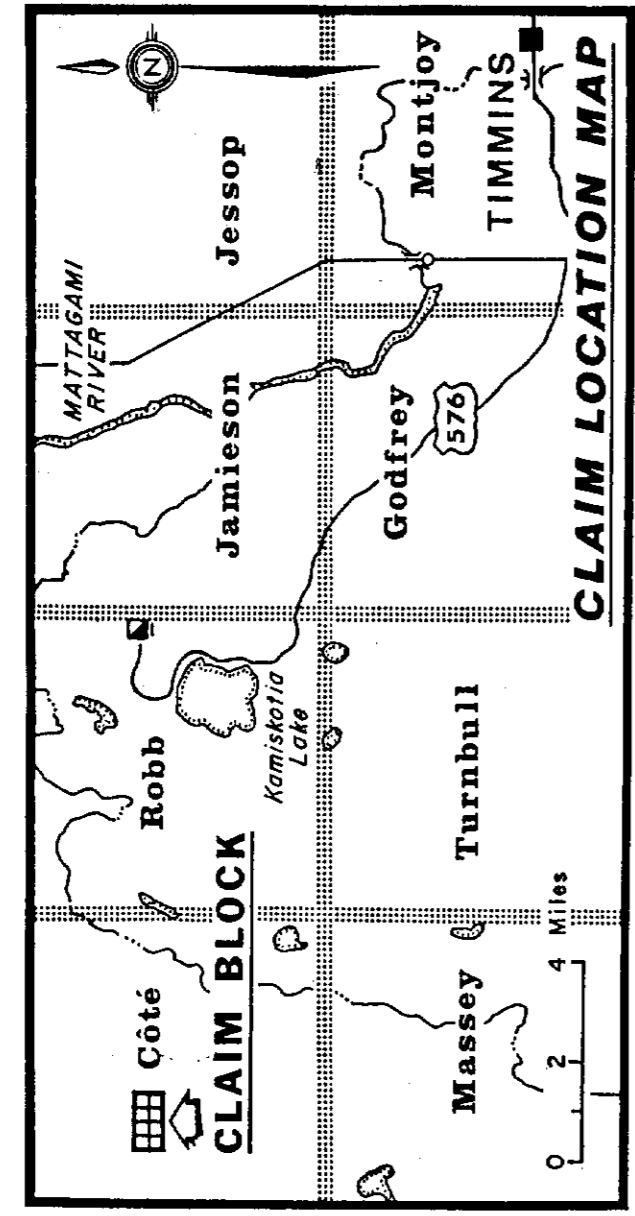
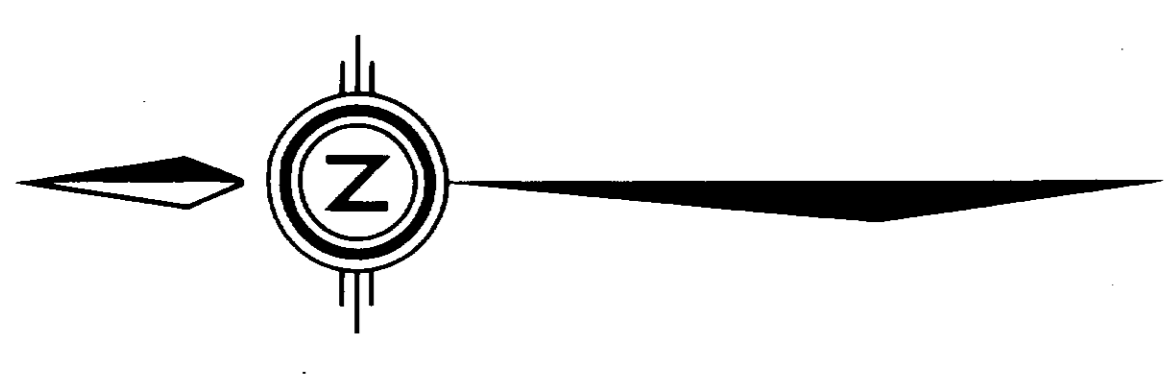


CÔTÉ 1MB

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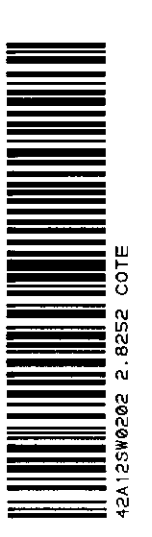
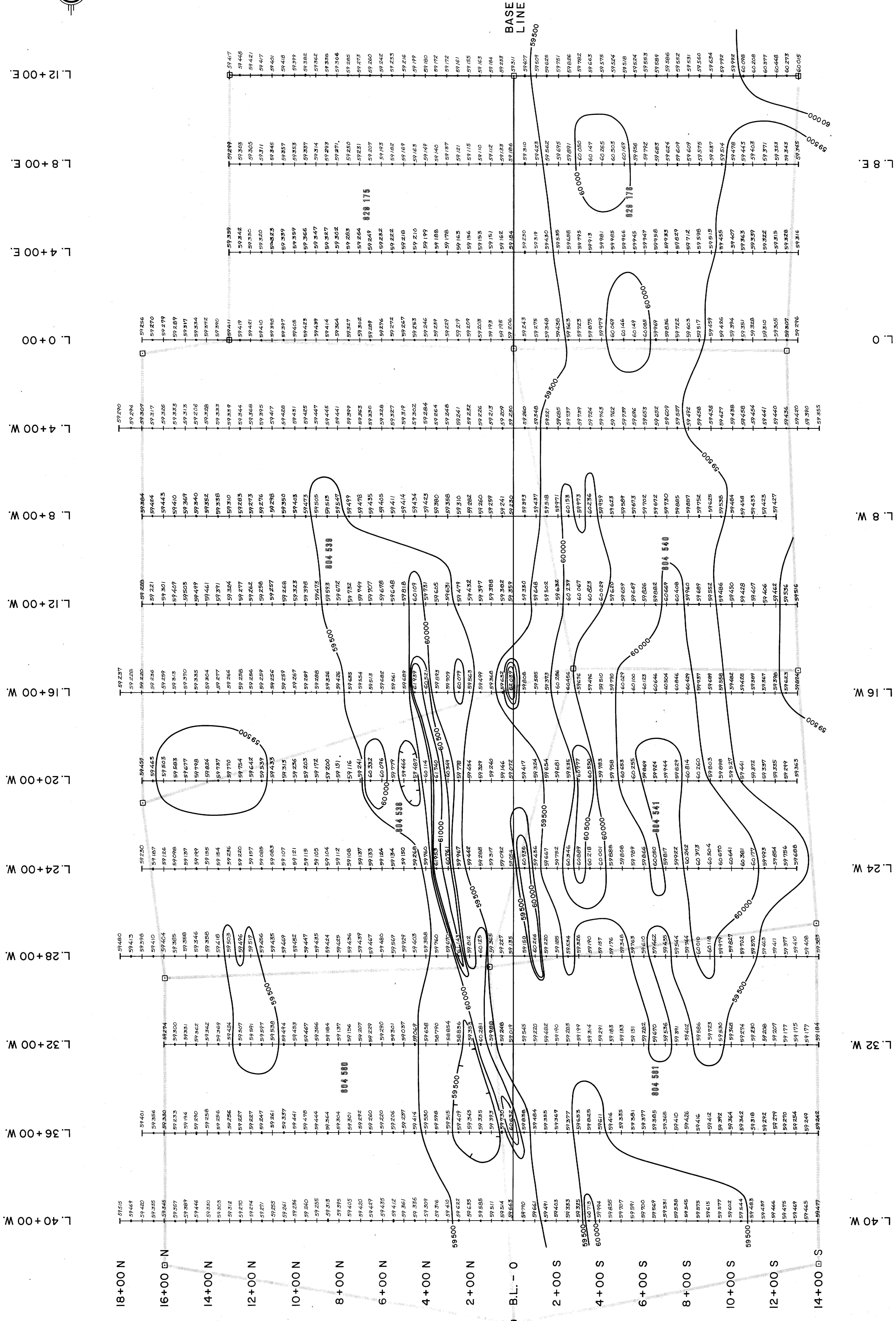
**MOUNTAIN FRONTIER EXPLORATIONS LTD**  
**MAGNETOMETER SURVEY**

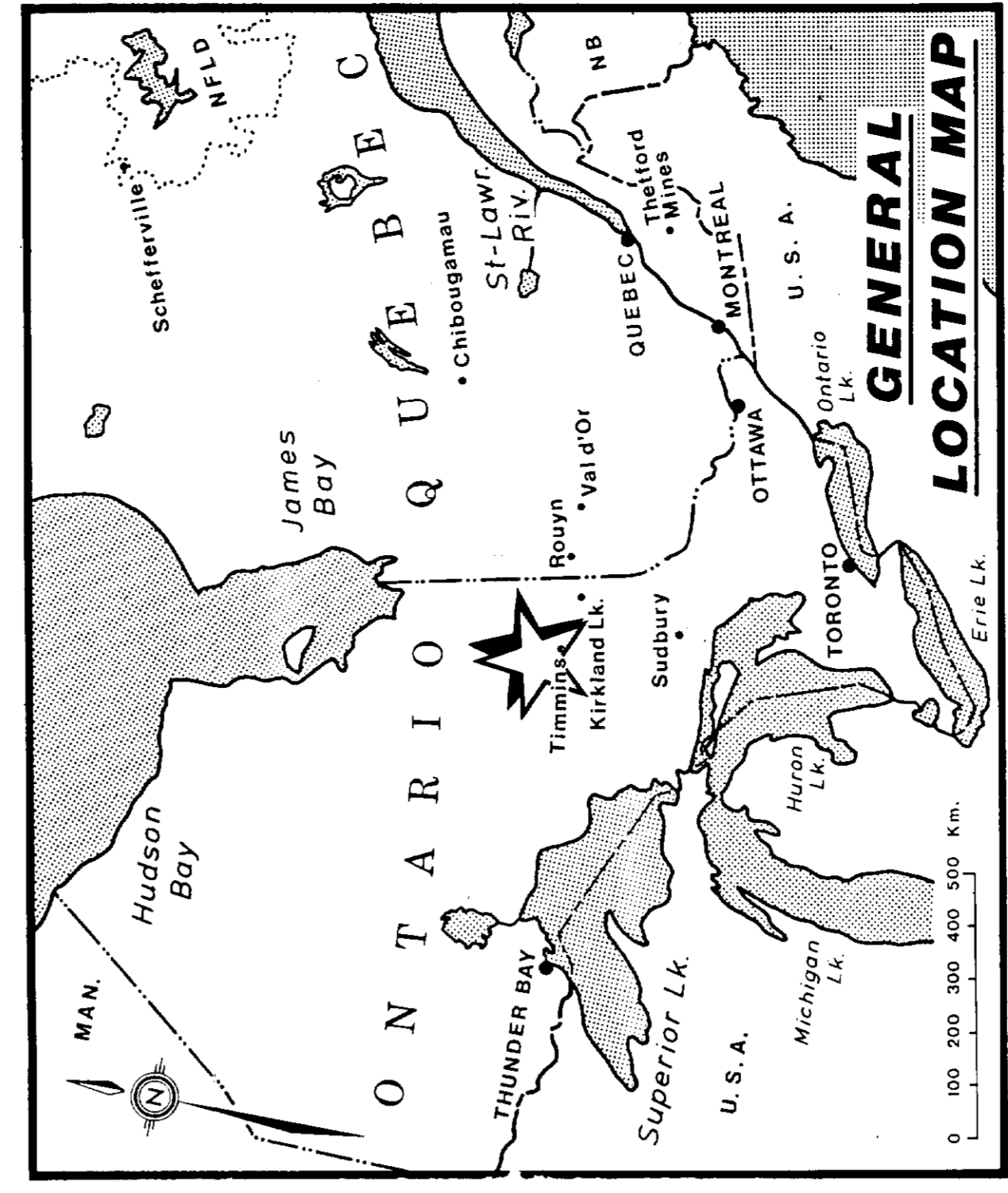
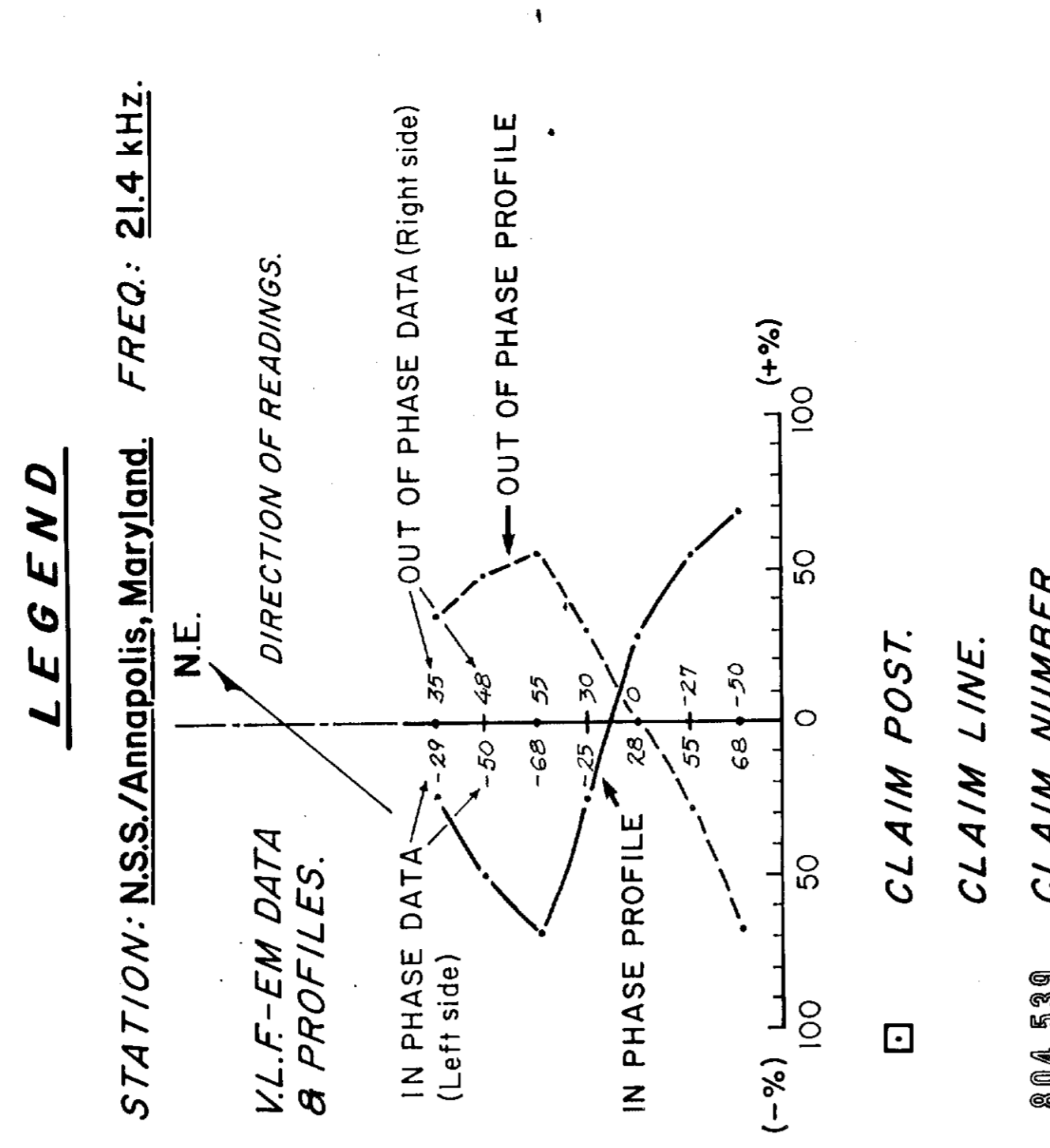
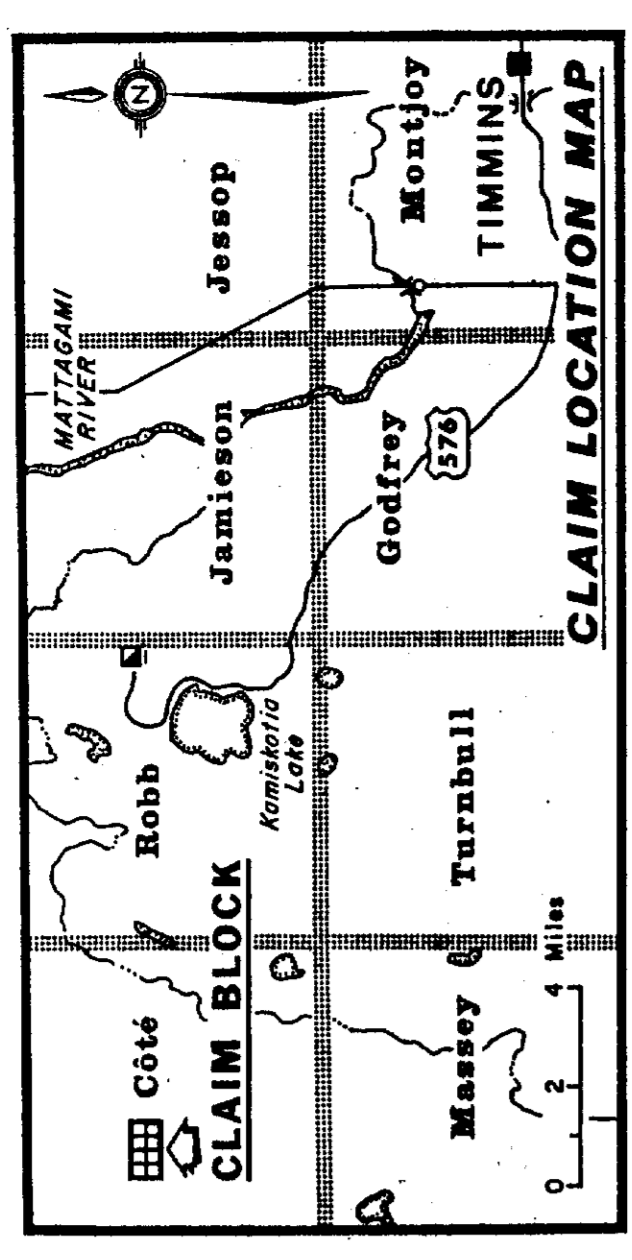
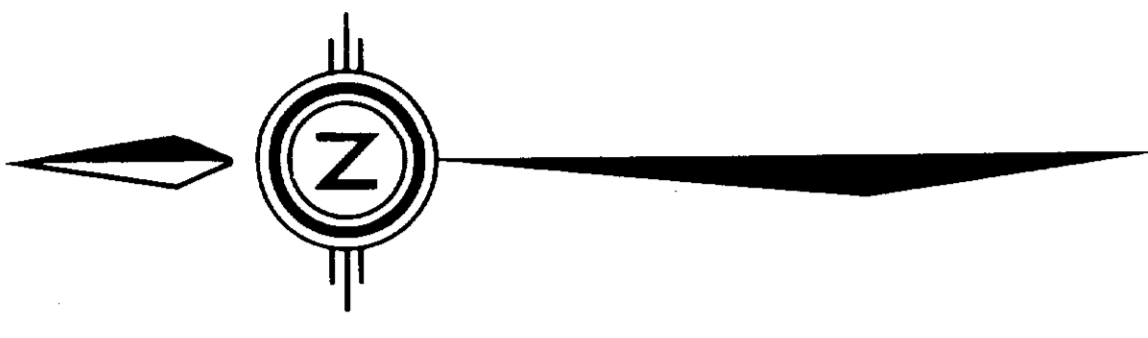
Côté Township Property

COMPILATION: WAYNE HOLMSTEAD DATE: 03/1985 INTS: 42 A  
 DRAFTING: YVES BOUCHER DATE: 04/1985 File No:  
 REFERENCE: REV.: MAP No: 1  
**GEOCOM** 116 Niagara St. Kirkland, Quebec  
*Consulting* H9J 3B6 - Tel: (514) -

**LEGEND**

- INSTRUMENTS: SCINTREX MP-2.
- MAGNETOMETER DATA.
- MAGNETOMETER CONTOURS.
- CLAIM POST.
- CLAIM LINE.
- CLAIM NUMBER.





Feet 200 0 200 400 600 Feet

SCALE: 1" = 1800 Feet

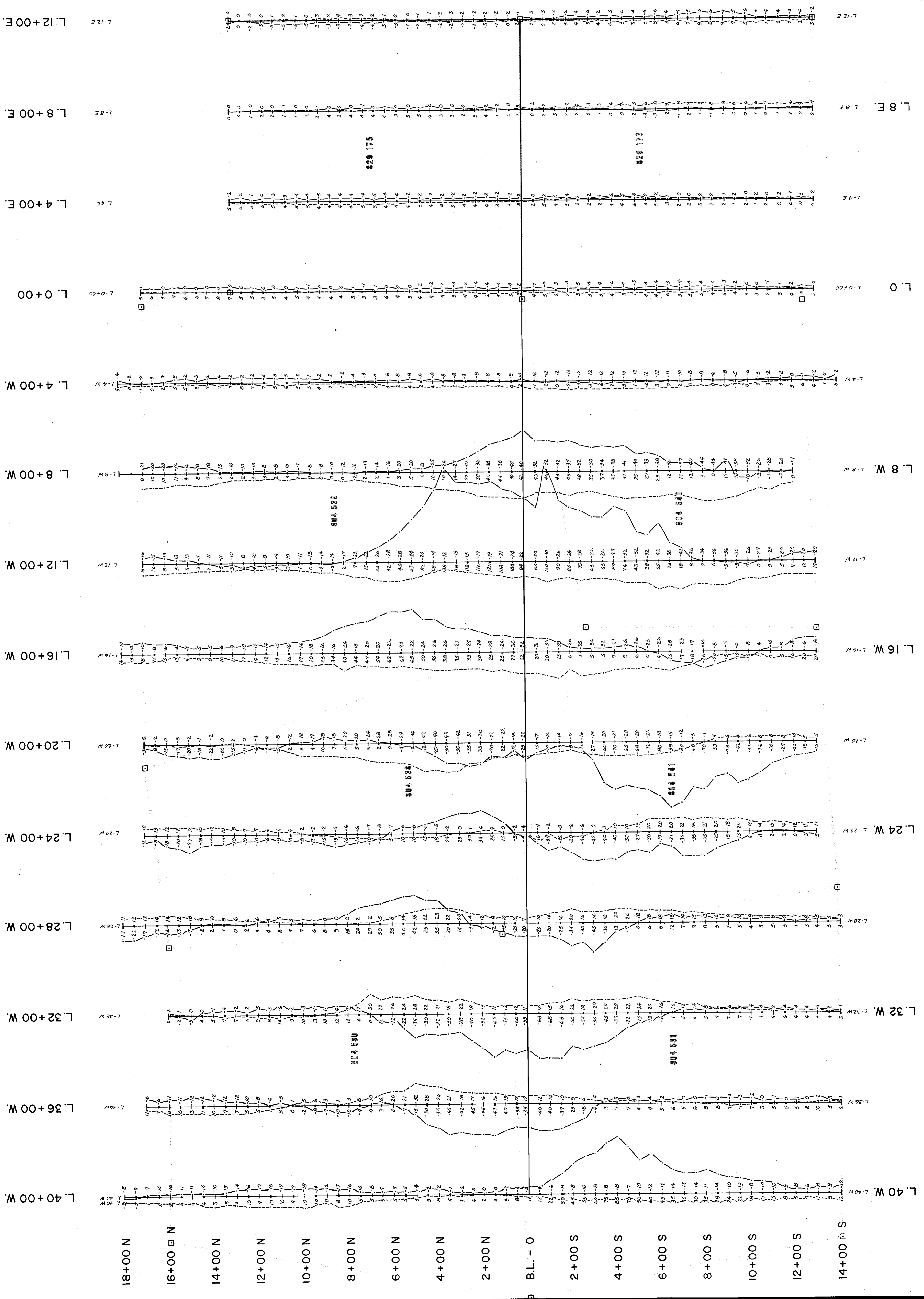
**MOUNTAIN FRONTIER EXPLORATIONS LTD**

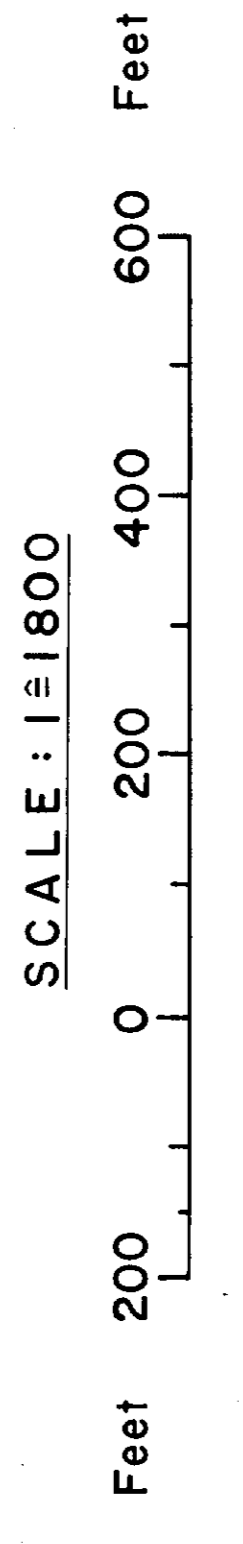
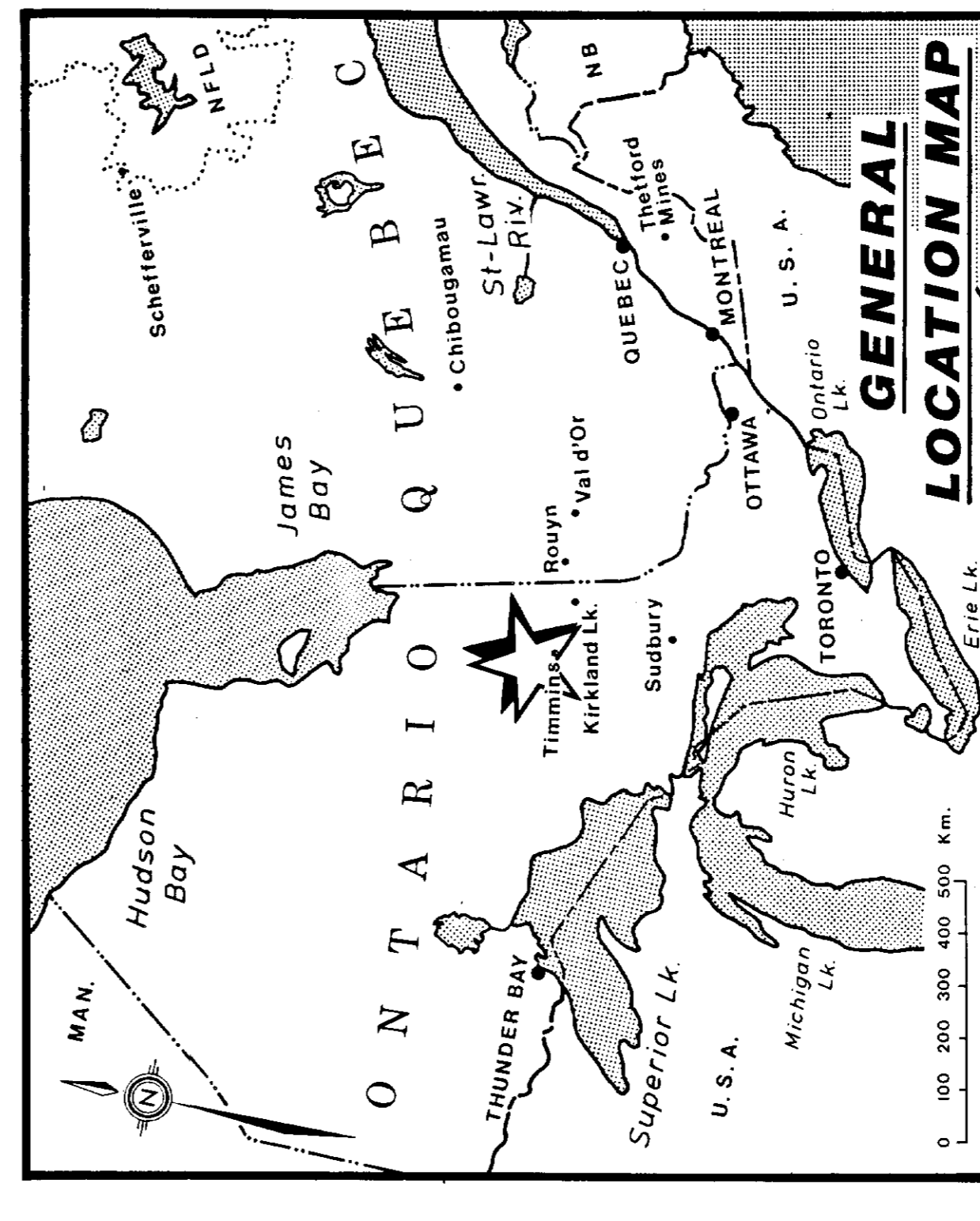
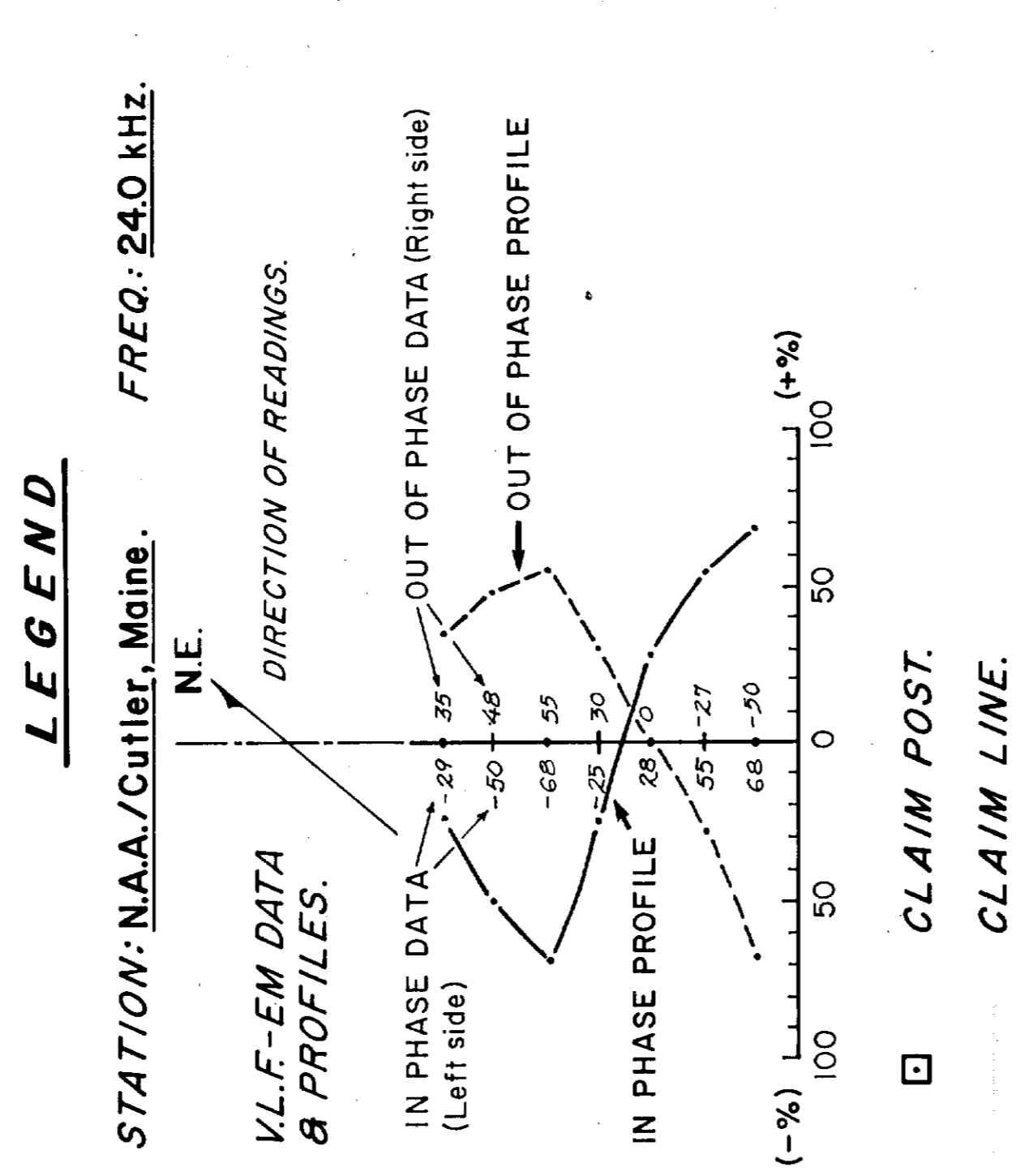
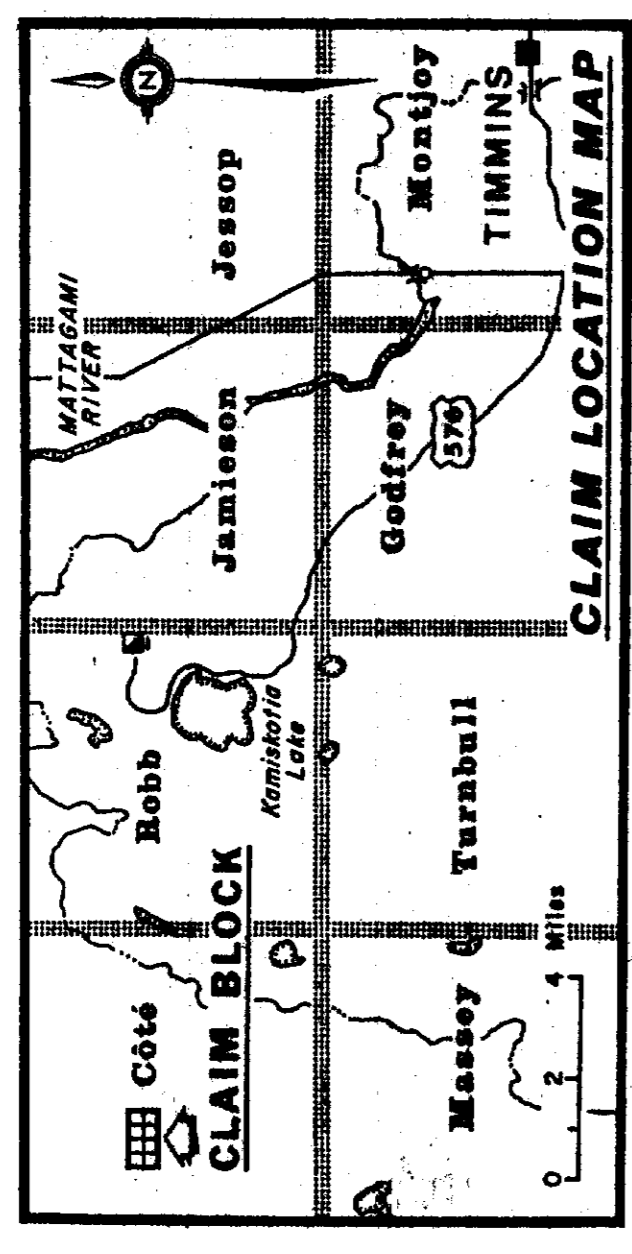
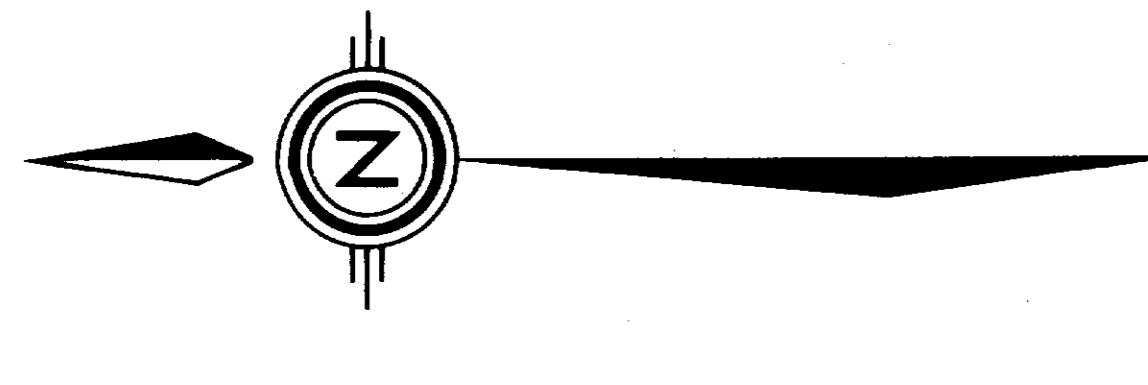
Côté Township Property

**VLF-EM SURVEY (N.S.S.-PROFILES)**

COMPILATION: WAYNE HOLMSTED DATE: 03/1985 NTS: 424  
 DRAFTING: ANDRE FERLAND, Y.B. DATE: 05/1985 File No.:  
 REFERENCE: REV. : MAP No: 2

**GEOCOM Consulting**  
 116 Niagara St. Kirkland, Quebec  
 H9J 3B6. -Tel.: (514) 825-5252





**MOUNTAIN FRONTIER EXPLORATIONS LTD**  
 Coté Township Property  
**VL.F-EM SURVEY (N.A.A.-PROFILES)**

COMPILATION: WAYNE HOLMSTEAD DATE: 03/1985 INTS: 424  
 DRAFTING: ANDRE FERLAND, Y.B. DATE: 05/1985 File No:  
 REFERENCE: REV.: MAP No: 4

**GEOCOM Consulting**  
 116 Niagara St. Kirkland, Quebec  
 H9J 3B6 - Tel: (514) 271-8252

