

COMINCO LTD.

EXPLORATION  
N.T.S. 94L/3E

WESTERN DISTRICT

GEOPHYSICAL SURVEY

on the

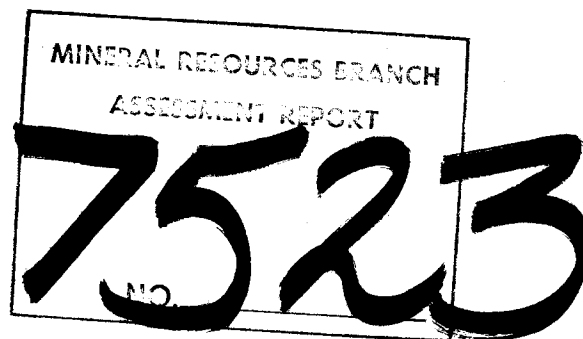
WEST GROUP, FROG RIVER PROPERTY

Kechika Area, Liard Mining Division, B.C.

Latitude:  $58^{\circ}12'N$  Longitude:  $127^{\circ}10'W$

Work Performed: August '8 - 17, 1979

On Claims : West No. 1 (20 Units)



November 1979

ALAN R. SCOTT

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GEOPHYSICAL SURVEY  
on the  
WEST GROUP, FROG RIVER PROPERTY

INTRODUCTION

During the period August 8-17, 1979, a two-man COMINCO geophysical crew completed 3.5 line kilometers of line cutting, gravity/levels survey and VLF electromagnetics survey over portions of COMINCO's FROG RIVER property (WEST GROUP of mineral claims).

This report gives a description of the geophysical surveys, presents the data and includes a brief discussion of the results.

LOCATION AND ACCESS

The FROG RIVER property is located in the Kechika area of the Liard Mining Division of B.C. The claims straddle a minor eastward flowing tributary of the Frog River, as indicated on the accompanying location plan (Plate 158-79-1) and claim sketch (Plate 158-79-2).

Access to the property can be gained by helicopter from Watson Lake, Yukon Territory, which lies some 200 kms to the north northwest.

GEOPHYSICAL SURVEYS

VLF Electromagnetics: A Crone RADEM electromagnetic receiver was used for the VLF survey. Station NLK (Seattle, Washington) was used as the transmitter VLF station. The data is presented in profile form on Plate 159-79-3. It is plotted so as to give a right wave cross-over of the in-phase tilt angle values, and a positive peak in field strength, over a conductive body.

Gravimetrics

Gravimetrics: A Texas Instruments Warden Master gravity meter was used on the survey. The instrument has a scale constant of 0.8229 gravity unit/scale division (1 gravity unit = 0.1 milli gal). The station elevations were established by a levels survey.

The station elevations are plotted on Plate 158-79-4 and are relative to an arbitrarily assigned value of 500.000 meters to line 400 north at the baseline. This station was also chosen as the main base station for the gravity meter, and this station was reoccupied at regular intervals during the survey to obtain tidal and meter drift corrections.

The tide- and drift-corrected observed gravity values were reduced to relative Bouguer gravity (corrected for latitude, free air, and Bouguer slab) at Bouguer densities of 2.3, 2.5, and 2.7 grams/cubic centimeter. The coefficient of linear correlation of relative Bouguer gravity to relative station elevation was then computed. The density of 2.5 g/cc gave the minimum correlation to topography (elevation) and hence is the data set that is presented in this report (Plate 158-79-5).

#### DISCUSSION OF RESULTS

Electromagnetics: The VLF-EM data is plotted in profile form on Plate 158-79-3. A well defined VLF conductor was detected in the southeast portion of the survey area on line 4S at 7+50E, on line 0 at 5+00E, and more weakly on line 2N at 3+50E.

No other conductors were detected that are obviously correlatable from line to line.

Gravimetrics: The relative station elevations are plotted on Plate 158-79-4 and the relative Bouguer gravity values on Plate 158-79-5.

A prominent

GEOPH. SURVEY: WEST GROUP, FROG.....

Page -3-

A prominent gravity high is centered on line 1200N. This high is open to the northwest as well as to the northeast. The source of this very large gravity high is most likely formational, but a mineralized source is a possibility. In addition, the gravity contours show a strong regional component. Further survey to close off the high and to better define the regional trends is required.

### CONCLUSIONS

Portions of COMINCO's FROG RIVER property were surveyed with VLF-EM and gravimetrics in the summer of 1979.

The VLF survey detected a conductor in the southeastern grid area, and the gravimetrics survey showed a very large gravity high in the central survey area.

Further gravity work to determine the extent of this high and better define the regional trends is recommended.

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Respectfully submitted:



ALAN R. SCOTT  
Geophysicist

Endorsed for release:



G. HARDEN  
Manager, Western District

ARS/tlp  
31/10/79

Distribution:

Mining Recorder (2)  
Western District (2)  
Geophysics (1)

APPENDIX I

IN THE MATTER OF THE B.C. MINERAL ACT  
AND IN THE MATTER OF A GEOPHYSICAL PROGRAMME  
CARRIED OUT ON PORTIONS OF THE WEST MINERAL CLAIMS  
ON THE FROG RIVER PROPERTY  
LOCATED 200 KM SOUTH SOUTHEAST OF LOWER POST IN THE LIARD MINING DIVISION  
OF THE PROVINCE OF BRITISH COLUMBIA, MORE PARTICULARLY  
N.T.S. 94L/3E

S T A T E M E N T

I, ALAN SCOTT of the City of Vancouver, in the Province of British Columbia, make oath and say:

1. That I am employed as a Geophysicist by COMINCO LTD. and, as such, have a personal knowledge of the facts to which I hereinafter depose;
2. That annexed hereto and marked as "Appendix II" to this statement is a true copy of expenditures incurred on geophysical survey on the West Mineral Claims;
3. That the said expenditures were incurred between the 8th and 17th of August, 1979, for the purpose of mineral exploration of the above noted claims.



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ALAN SCOTT  
Geophysicist

ARS/tlp  
31/10/79

APPENDIX II

WEST GROUP, FROG RIVER PROPERTY

STATEMENT OF EXPENDITURES

(Ground control, gravity, levels, VLF-EM)

SALARIES (includes 4 days mob. & demob.)

GJNiemeyer	August 8-17	9 days @ \$105	\$945.00	
SKirstiuk	-do-	-do- 81	<u>729.00</u>	\$1,674.00

EQUIPMENT RENTALS

5 days gravity meter/levels @ \$ 25	\$125.00	
1 day VLF-EM	12.50	<u>12.50</u>
		137.50

OPERATING CHARGES

(Towards report, drafting, supervision)

5 days geophysical survey @ \$175	875.00
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CHARTER AIRCRAFT

DHC-3 Otter (280 miles)	\$ 532.00	
Bell 206 helicopter (4.5 hrs)	<u>1605.80</u>	2,137.80

MISCELLANEOUS

Air fare, taxis, food & accommodation	<u>1,086.76</u>
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TOTAL.....\$5,911.06

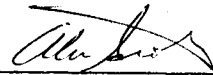


APPENDIX III

C E R T I F I C A T I O N

I, ALAN SCOTT, of 4013 West 14th Avenue, in the City of Vancouver, in the Province of British Columbia, do hereby certify that:

1. I graduated from the University of British Columbia in 1970 with a B.Sc. in Geophysics;
2. I am a member of the Association of Professional Engineers of the Province of Saskatchewan, the Society of Exploration Geophysicists of America, and the British Columbia Geophysical Society;
3. I have been practising my profession for the past nine years.

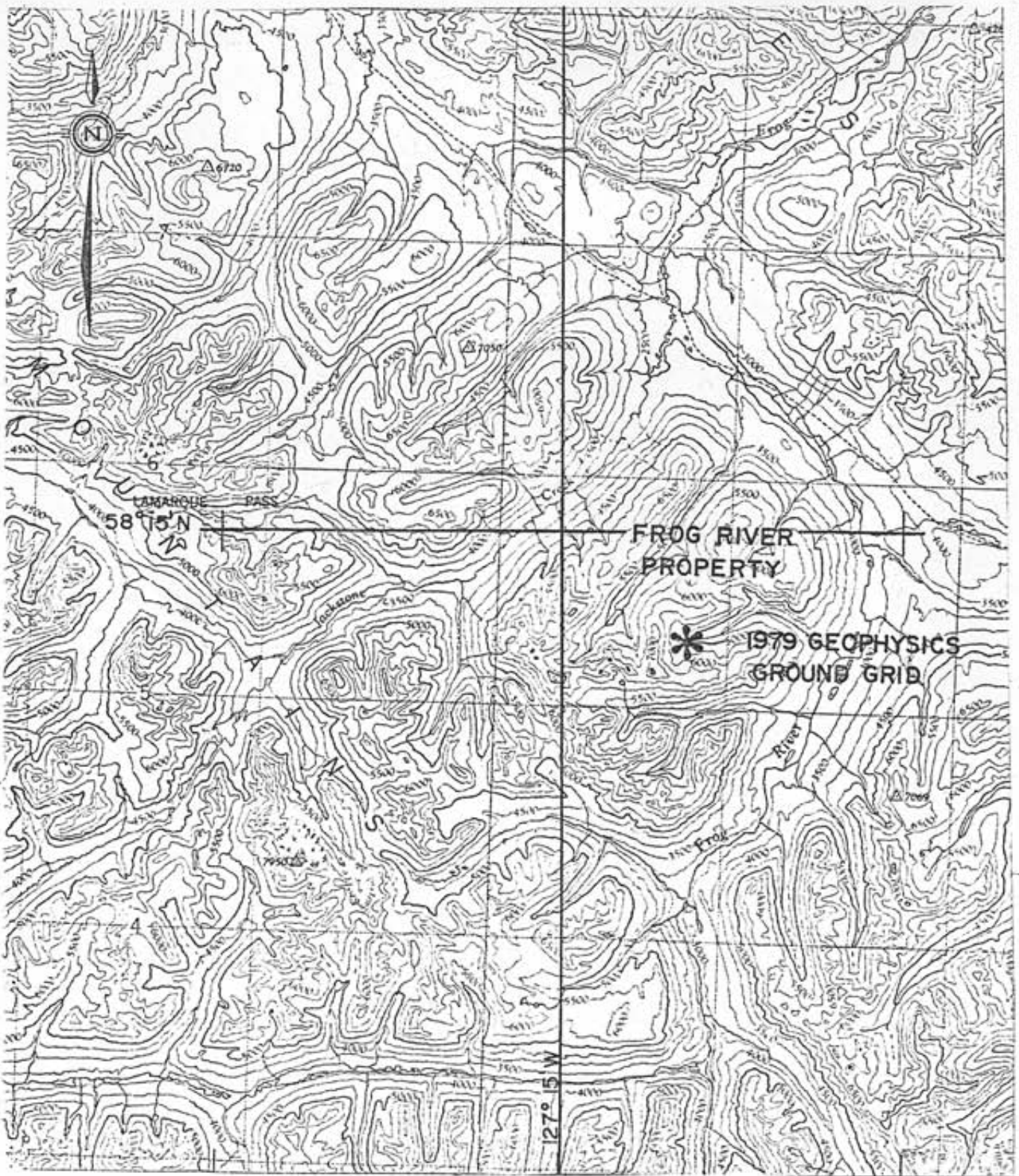


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ALAN SCOTT

ARS/tlp  
31/10/79





Scale 1 : 250,000  
1 Inch to 4 Miles Approximately



**FROG RIVER  
PROPERTY**



NTS-  
94-L-3E

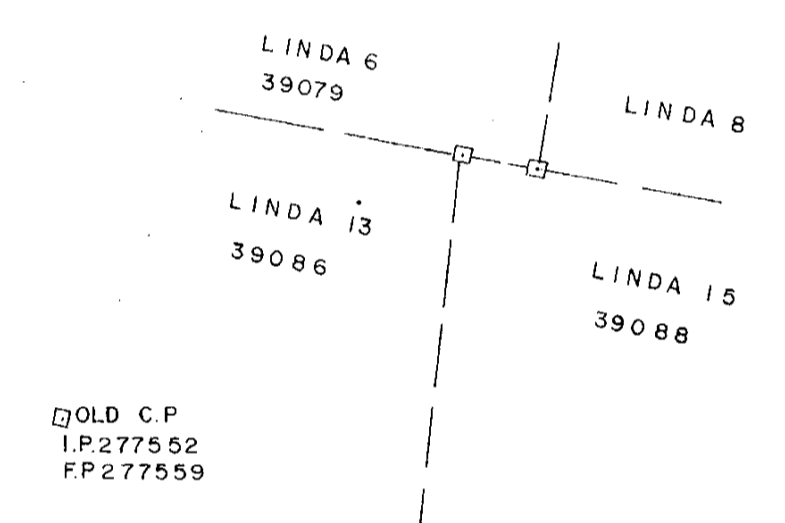
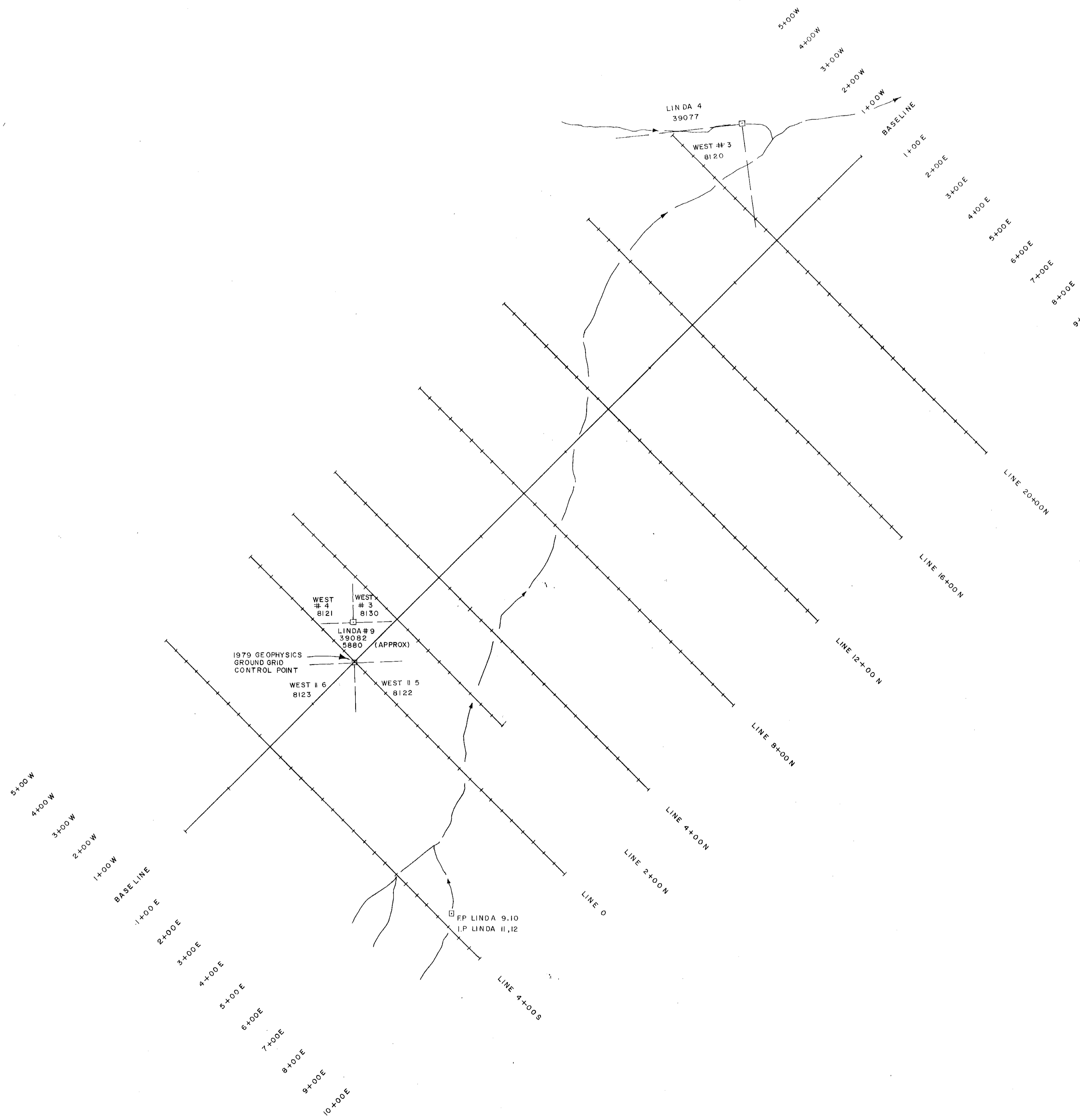
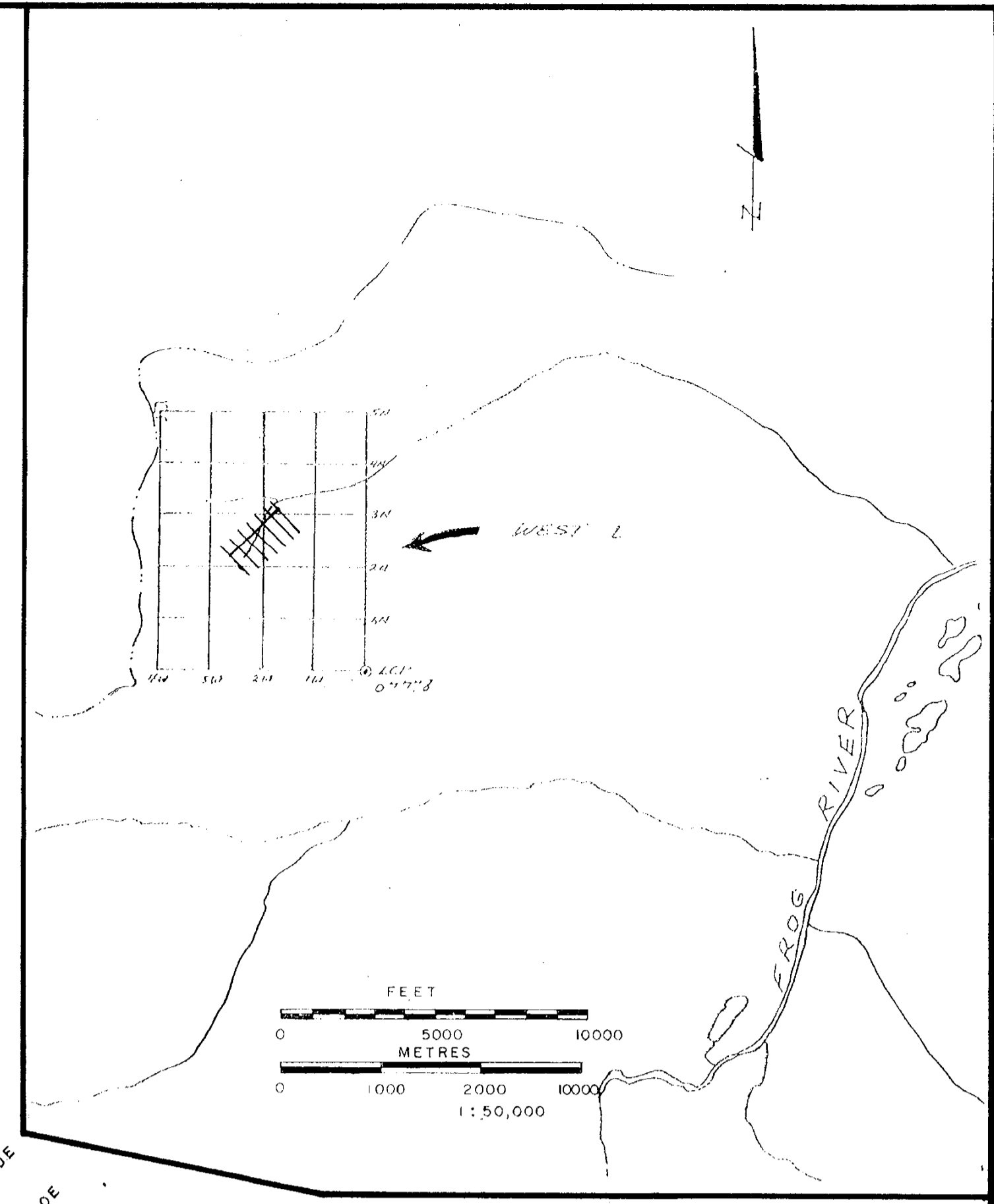
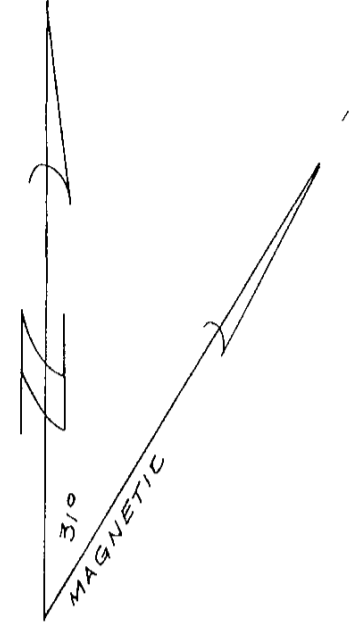
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Revised by	Date	Revised by	Date


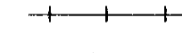

**LOCATION MAP**

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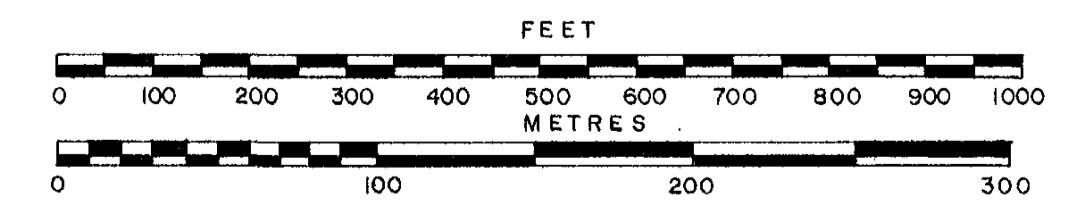
Date: OCTOBER 1979

Plate: 158-79-1

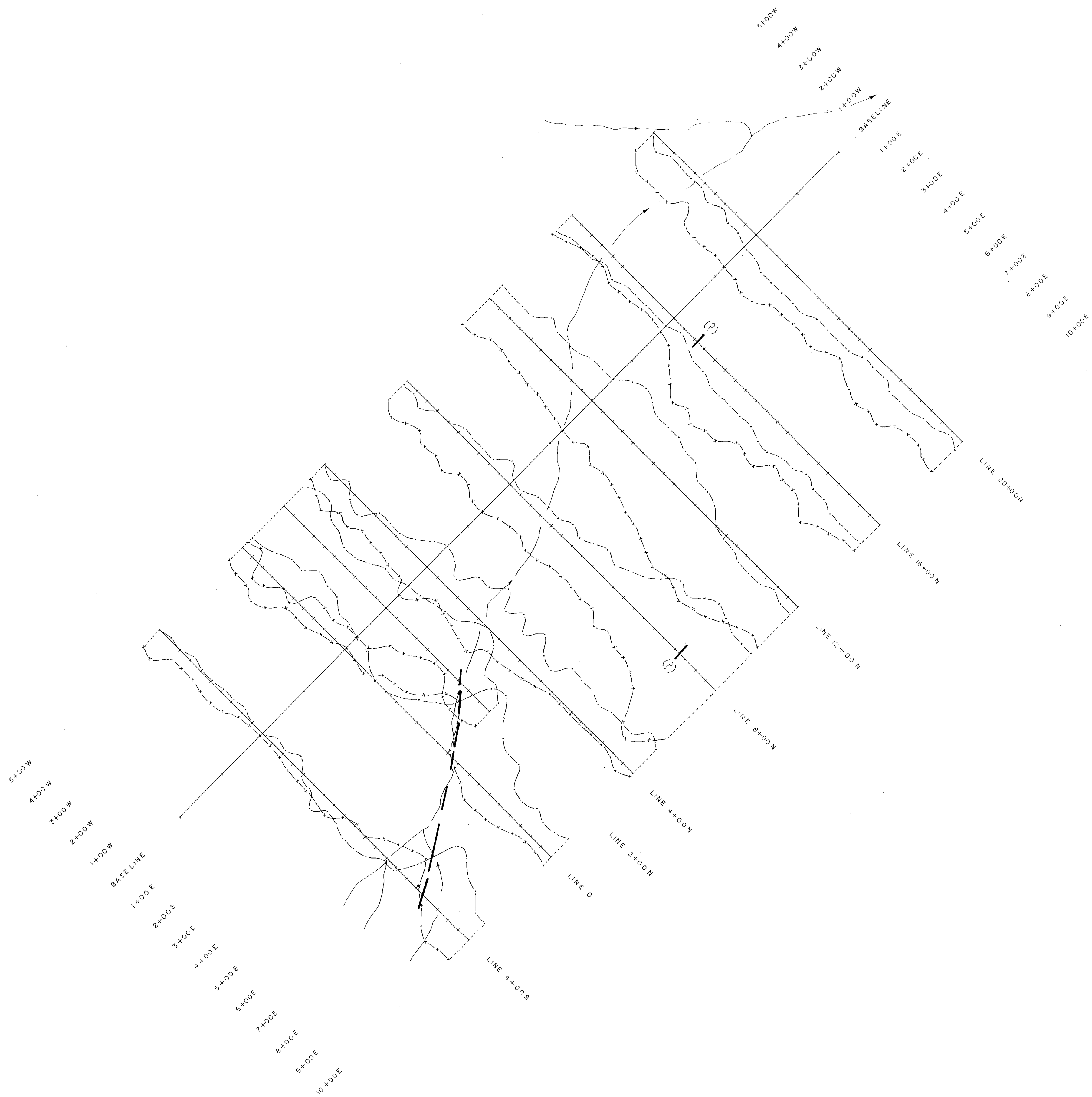
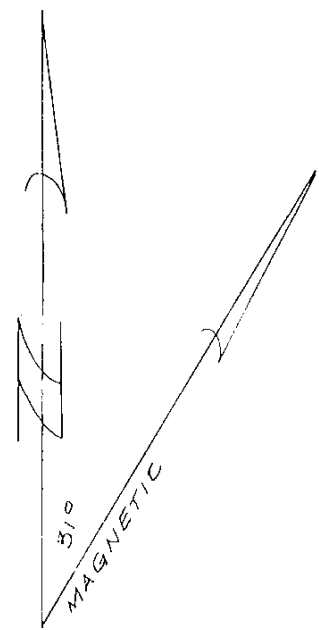



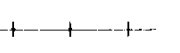
-  CREEK
-  1979 GEOPHYSICS GROUND GRID
-  CLAIM POST AND APPROXIMATE LOCATION OF THE CLAIM BOUNDARY

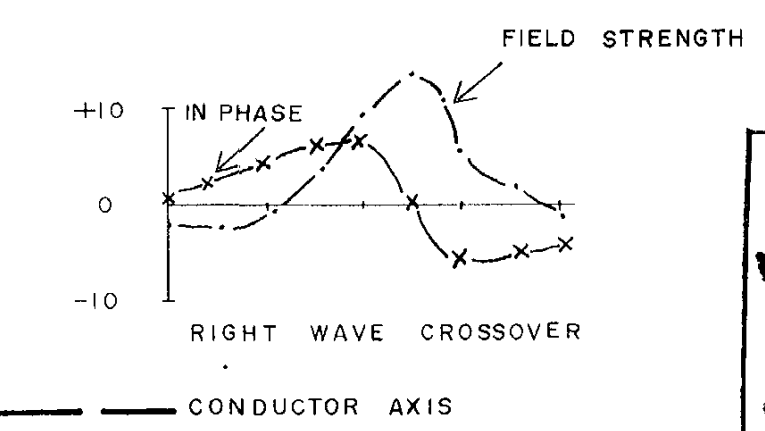
MINERAL RESOURCES BRANCH  
 ASSESSMENT REPORT  
**7523**



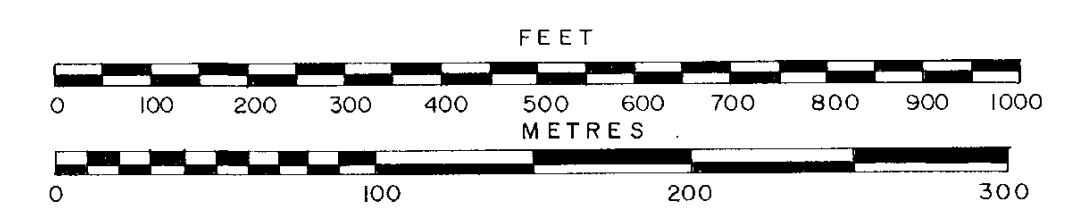
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Drawn by:	Traced by:		WEST GROUP	
Revised by:	Date:	Revised by:	Date:	CLAIM MAP
				LIARD M. D., B.C.
Scale: 1" = 200'		Date: OCT. 1979		Plate: 158-79-2




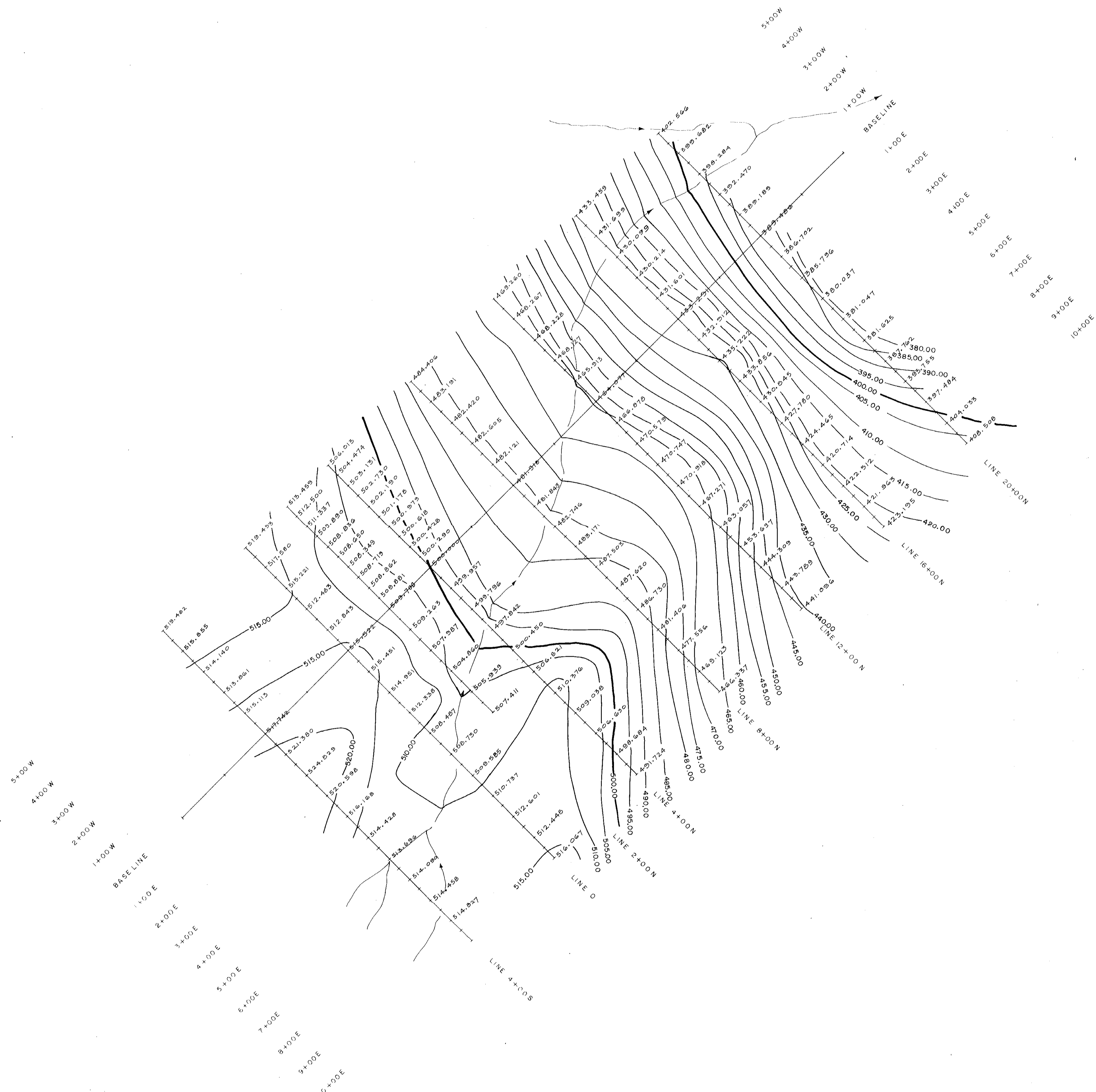
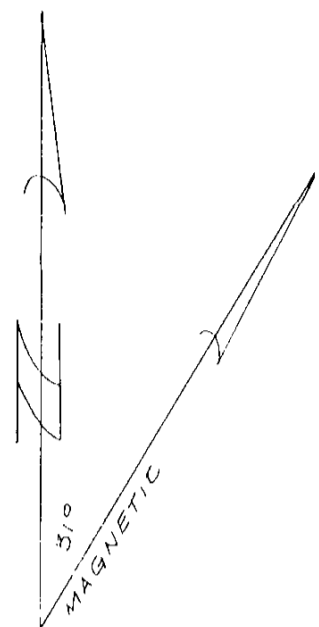
 CREEK  
 1979 GEOPHYSICS GROUND GRID  
 INSTRUMENT: CRONE RADEM (VLF)


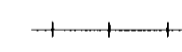


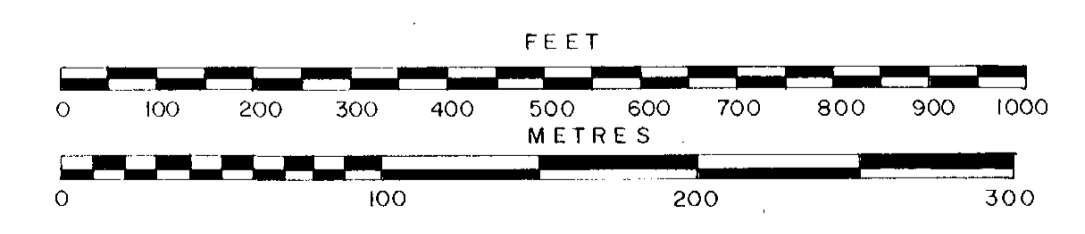
MINERAL RESOURCES & DEVELOPMENT  
 ASSESSMENT REPORT  
**7523**



FROG RIVER PROPERTY				 NTS 94-L-3E
Drawn by	Traced by		WEST GROUP	
Revised by	Date	Revised by	Date	VLF ELECTROMAGNETIC SURVEY
				LIARD M. D., B. C.
Scale 1" = 200'		Date	OCT. 1979	Plate 158-79-3

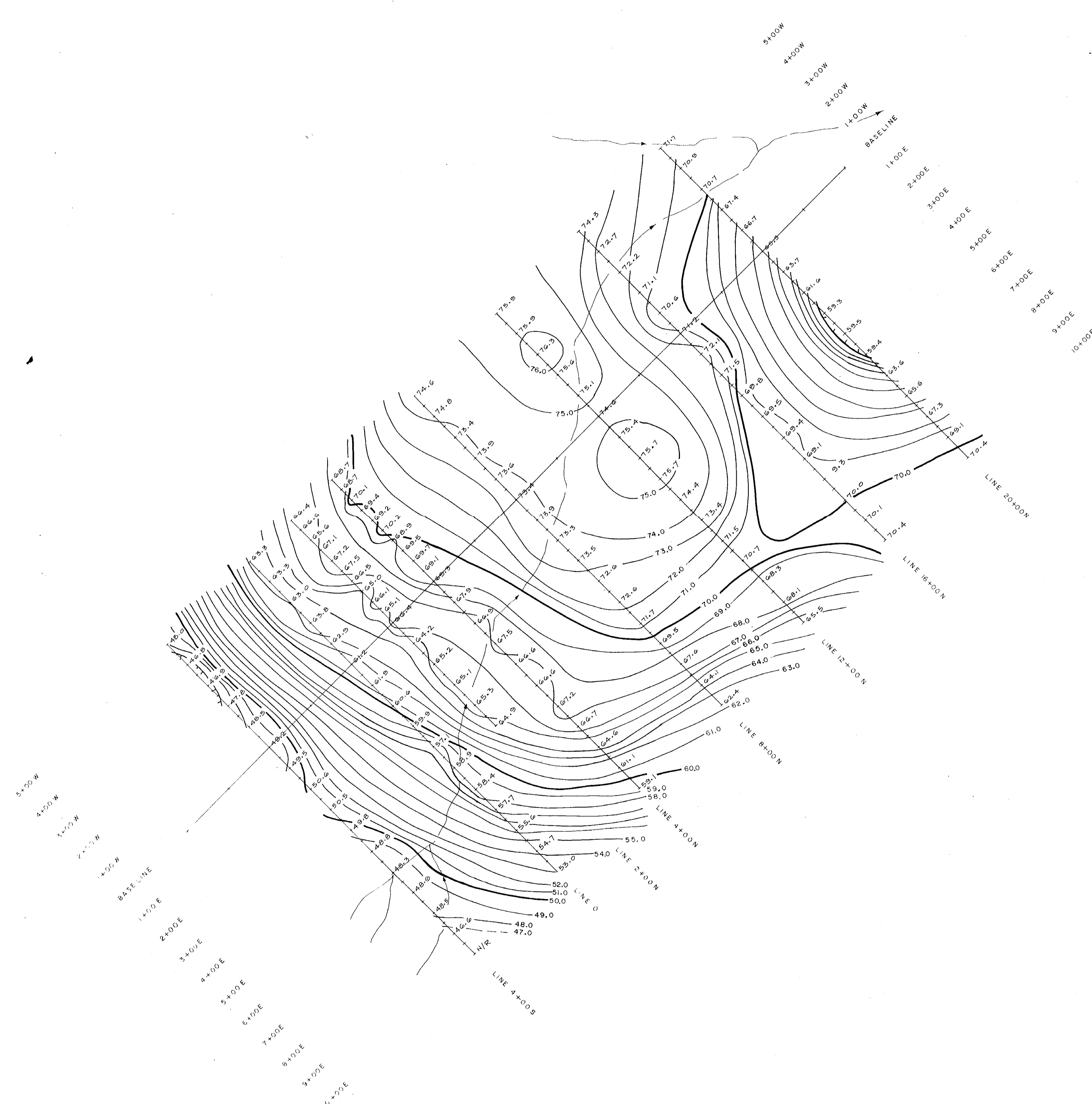
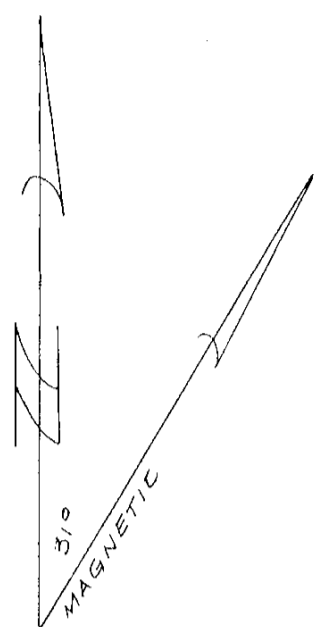



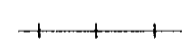
 CREEK  
 1979 GEOPHYSICS GROUND GRID  
 RELATIVE STATION ELEVATIONS (METERS)  
 LINE 400N AT BASELINE DEFINED AS 500.000 METERS



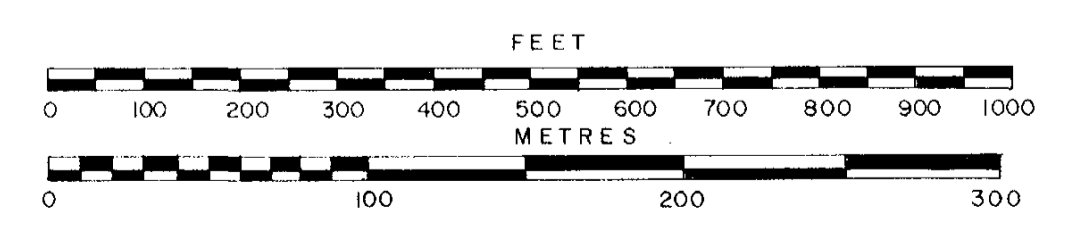
MINERAL RESOURCE DIVISION  
 ASSESSMENT REPORT  
**7523**

FROG RIVER PROPERTY		NTS 94-L-3 E
Drawn by	Traced by	WEST GROUP RELATIVE ELEVATIONS (METERS) LIARD M. D., B.C.
Revised by	Revised by	
Scale 1" = 200'		Date OCT. 1979
		Plate 158-79-4



 CREEK  
 1979 GEOPHYSICS GROUND GRID  
 BOUGUER GRAVITY CONTOUR INTERVAL 1.0 GRAVITY UNITS (0.1 MILLIGALS)  
 BOUGUER DENSITY = 2.5 g/cc  
 INSTRUMENT: WORDEN MASTER SCALE CONSTANT  
 0.8229 GRAVITY UNITS / SCALE DIVISION

MINISTRY OF MINES BRANCH  
 ACTING ASSISTANT  
**7523**



FROG RIVER PROPERTY		NTS 94-L3E	
Drawn by	Traced by	WEST GROUP	
Revised by	Revised by	RELATIVE BOUGUER GRAVITY	
		LIARD M. D., B.C.	
Scale	1" = 200'	Date	OCT. 1979
		Plate	158-79-5