

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

N.T.S. 82F/6W

GEOPHYSICAL SURVEYS

ON THE

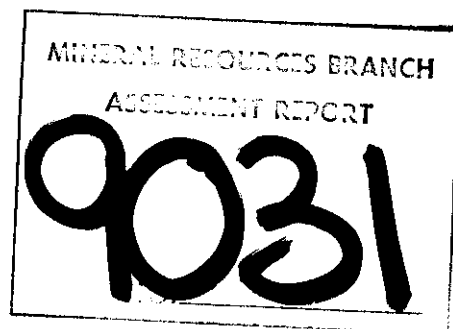
CONNOR GROUP, HUNGRY MAN PROPERTY

SOUTH SLOCAN AREA, NELSON M.D., B.C.

LATITUDE: 49°25'N; LONGITUDE: 117°<sup>29</sup>30'W

WORK PERFORMED: Aug. 24-27, 1980

CLAIMS COVERED: CONNOR CLAIM



APRIL 1981

INGO JACKISCH

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NTS: 82F/6W

WESTERN DISTRICT  
13 April 1981

GEOPHYSICAL SURVEYS

ON THE

CONNOR GROUP, HUNGRY MAN PROPERTY

SOUTH SLOCAN AREA, NELSON M.D., B.C.

INTRODUCTION

During the last week in August 1980, a Cominco geophysical crew ran an HLEM survey on the Hungry Man Property of the Connor Group. The purpose of the survey was to detail an anomaly detected the previous year which used a 100 meter coil spacing. A total of 1.9 kms was read at a coil spacing of 50 meters, and 0.2 kms at a spacing of 25 meters.

This report describes the procedures and instrumentation of the survey, presents the data, and discusses the results. The magnetometer data (taken in 1979) will also be taken into account.

LOCATION AND ACCESS

The Hungry Man claim is located on Connors Creek about 3.0 miles south-easterly from South Slocan (Plate 1). The property can be reached from the Castlegar-Nelson highway by following Crestbrook's Rover Creek logging road for 8.2 miles to the junction of Rover and Connor Creeks. From there an upgraded (1980) 4 x 4 road leads approximately 2 miles to the drill sites and survey grid.

GEOPHYSICAL SURVEYS

Horizontal Loop Electromagnetics (HLEM):

An Apex Max Min II electromagnetometer was used for the HLEM survey. In 1979 a coil separation of 100 meters with a 25 meter station interval was used to take readings at 444, 1777, and 3555 Hz. The present survey was conducted with a 50 and 25 meter coil length at the same frequencies listed above. The station interval was 12½ meters in the anomalous area and 25 meters out of the anomaly.

The 1979 readings were made by computing the offsets and tilt angles in the positioning of the two coils, whereas the 1980 data used the "RUF"

method of estimating these positions.

The 1980 HLEM data is plotted in profile form on Plates 191-80-4, 5, and 6 accompanied with profiles of the topography on Plate 191-80-3.

#### DESCRIPTION OF RESULTS

The HLEM anomalies were detected at the shorter coil spacing from lines 00 N to 400 N, and confirmed the previous years data. This previous data was affected by steep topography which distorted the EM anomaly. The shorter coil spacings overcame this problem, which arose due to geometric considerations in traversing across a ravine.

The HLEM conductor response is poor to moderate. There is considerable diminishing of response as the frequency is lowered as well as no large in-phase to out-of-phase difference at 444 Hz. Moderate to strong magnetic highs are associated with these EM conductors.

The strongest EM response is detected on lines 00 N and 100 N. It is estimated the conductor "subcrops" 12.5 meters west of the baseline on line 00 N at a depth of approximately 3 meters. The width is roughly less than 2 meters and dip is  $40^{\circ}\text{E}$  with respect to the topography. At 1777 Hz the conductivity-thickness is 11 mhos. On line 100 N the conductor subcrops 30 meters west of the baseline at a depth of 4 meters. Width is about 2 meters and dip is estimated  $45^{\circ}\text{E}$  with respect to the hillside. At 1777 Hz the conductivity-thickness is 10 mhos.

The conductor becomes weaker to the north with conductivity-thicknesses of 8 and 4.6 mhos for lines 200 N and 300 N respectively at 1777 Hz. The depth to the top of the zone remains at 10 meters and the dip is estimated in the  $20^{\circ}$ - $30^{\circ}\text{E}$  range (with respect to the hillside).

Drilling near line 00 N has indicated mineralization of 0.3 meters massive sulphides (30-60%) and 6 meters of 35%. This agrees with a thin sheetlike conductor which the EM survey indicates. Further drilling on line 100 N and to the north has resulted in barren intersections even though the EM conductor continues on these lines. It is believed the zone of interest is a near surface sheet-like structure containing inconsistent ore grades. The drill holes to the north might have gone underneath the zone or intersected areas where it was barren. The sharp magnetic highs coincident with the HLEM conductors also indicate a very shallow source.

#### CONCLUSIONS


An HLEM survey was conducted on the Hungry Man Property from Aug. 24-27 to detail a previous HLEM conductor in preparation for an upcoming drill program.

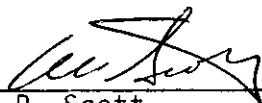
The anomaly showed up very well and is estimated to be a few meters below the surface, have a dip of  $40^{\circ}\text{E}$  with respect to the hillside,

estimated to be 2 meters or less in width, and have a conductivity-thickness of about 10 mhos. The strike of the conductor is continuous from line 00 N to line 400 N.


Subsequent drilling has been encouraging on line 00 N but has resulted in barren holes on line 100 N and to the north. It is possible the source of the anomaly is near surface and does not continue to depth, which explains the disappointing drill results.

Respectfully  
Submitted by:

  
\_\_\_\_\_  
Ingo Jackisch  
Geophysicist

  
\_\_\_\_\_  
Alan R. Scott  
Senior Geophysicist

Approved for  
Release by:

  
\_\_\_\_\_  
G. Harden, Manager  
Exploration, Western District

IJ/ARS/skg

Distribution:

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

APPENDIX I

CERTIFICATION

I, Ingo Jackisch, of 424 Somerset Street in the City of North Vancouver, in the Province of British Columbia, do hereby certify that:

1. I graduated from the University of British Columbia in 1975 with a B.Sc. in Geophysics;
2. I have been practising my profession for the past nine years;
3. I am registered as a member of the British Columbia Geophysical Society.

Signed: Ingo Jackisch  
Ingo Jackisch  
Geophysicist

13 April 1981

APPENDIX II

STATEMENT OF EXPENDITURES

SALARIES

A. Scott	3 days @ 150	\$ 450.00	
G. Radway	4 days @ 93	<u>372.00</u>	
			\$ 822.00

CHARGES PER OPERATING DAY

3 days HLEM Survey @ 175	<u>525.00</u>	
		\$ 525.00

EQUIPMENT RENTALS

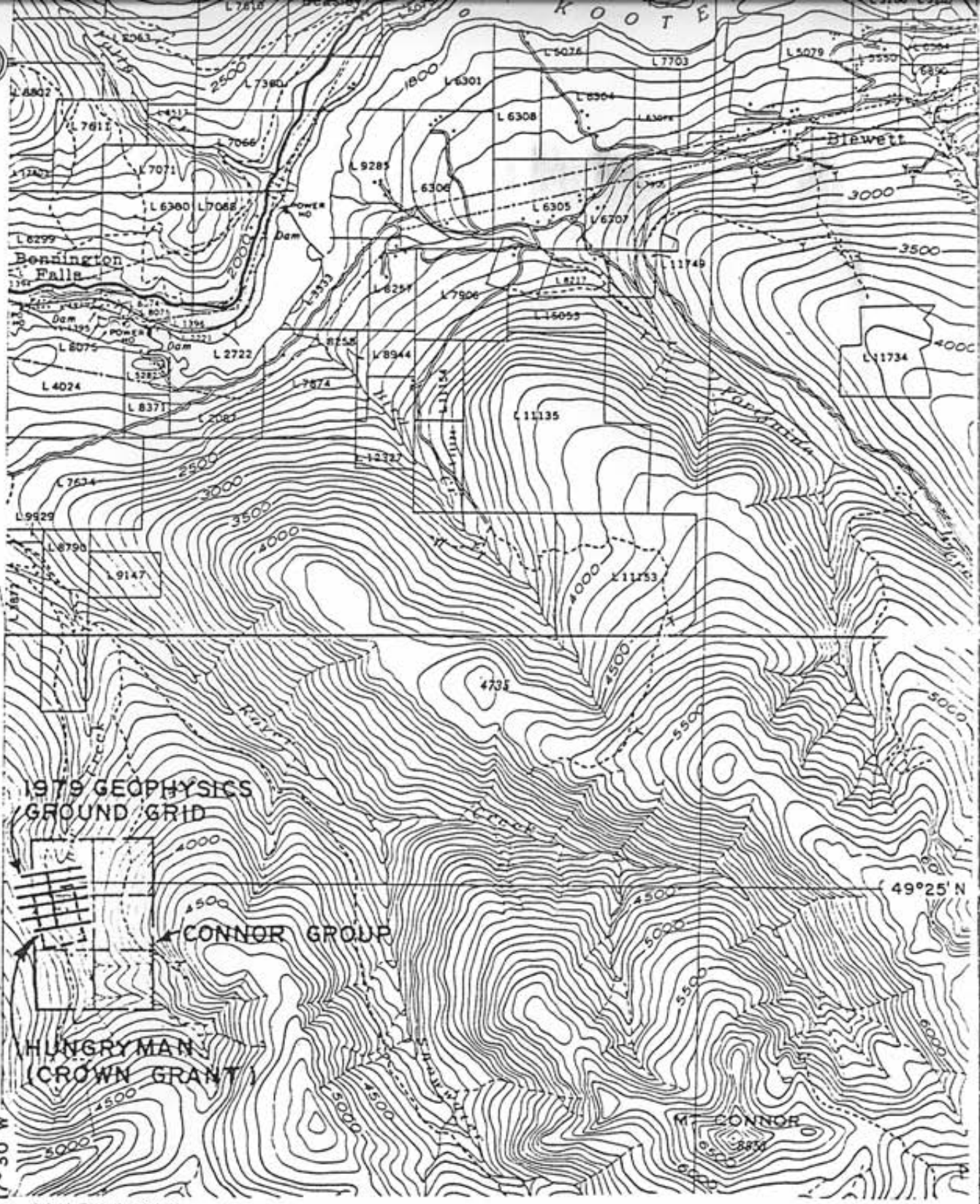
Max Min II	3 days @ 35	<u>105.00</u>	
			\$ 105.00

EXPENSE ACCOUNTS

A. Scott		323.97	
G. Radway		<u>300.00(est.)</u>	
			\$ 623.97

TOTAL:		<u><u>\$2,075.97</u></u>
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13 April 1981



1979 GEOPHYSICS  
GROUND GRID



CONNOR GROUP

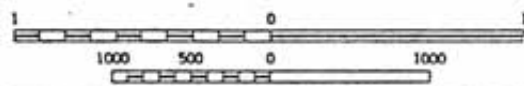
HUNGRYMAN  
(CROWN GRANT)

17° 30' W

49° 25' N

SCALE 1:50,000

1.25 inches to 1 mile approximately



CONNOR GROUP  
HUNGRYMAN (CROWN GRANT)



NTS  
82 F 6 W

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Revised by	Date	Revised by	Date

LOCATION MAP

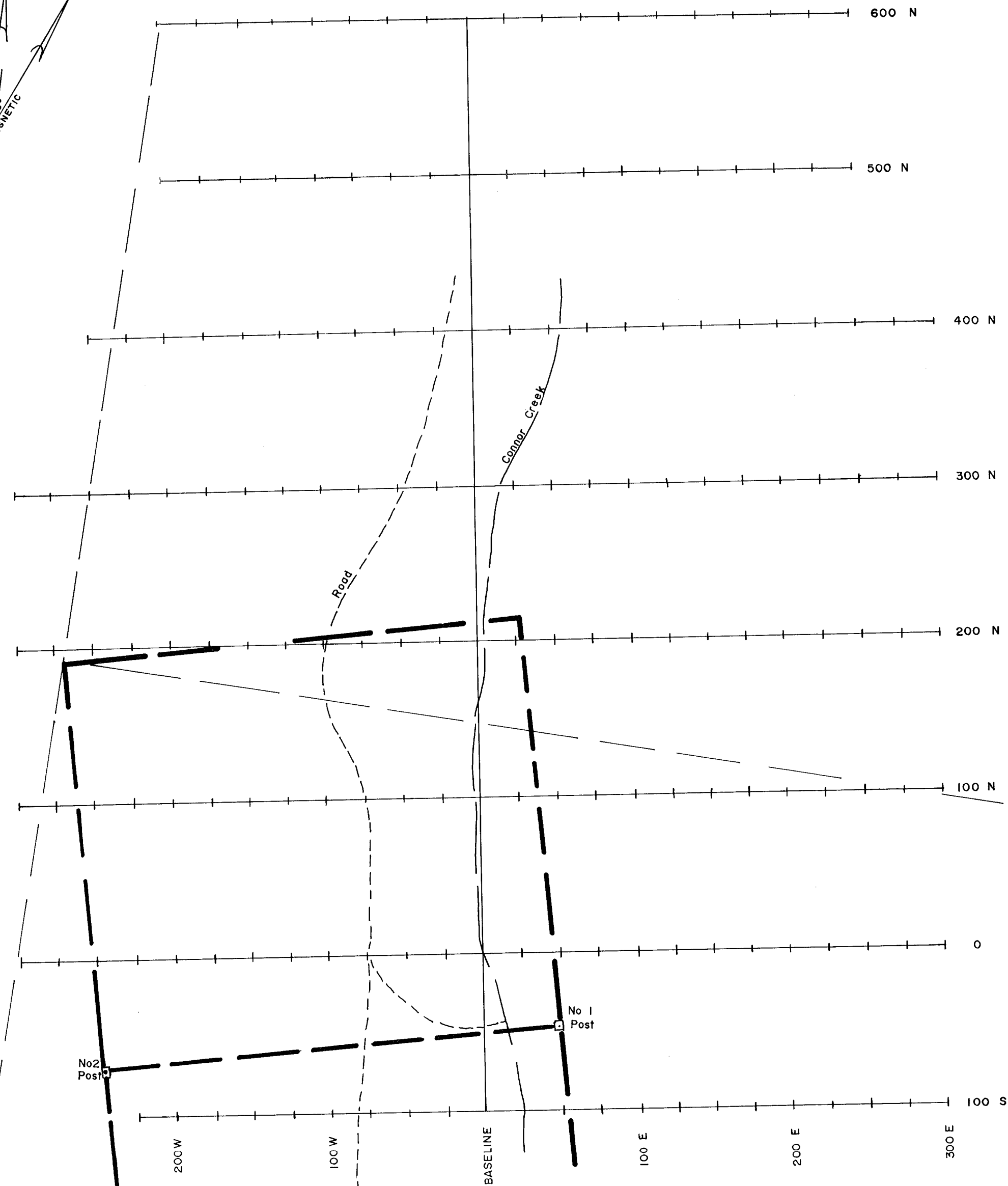
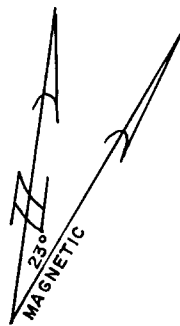
NELSON M.D., B.C.

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Date: NOV 1979

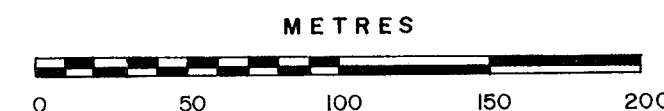
Plate: 190-80-1



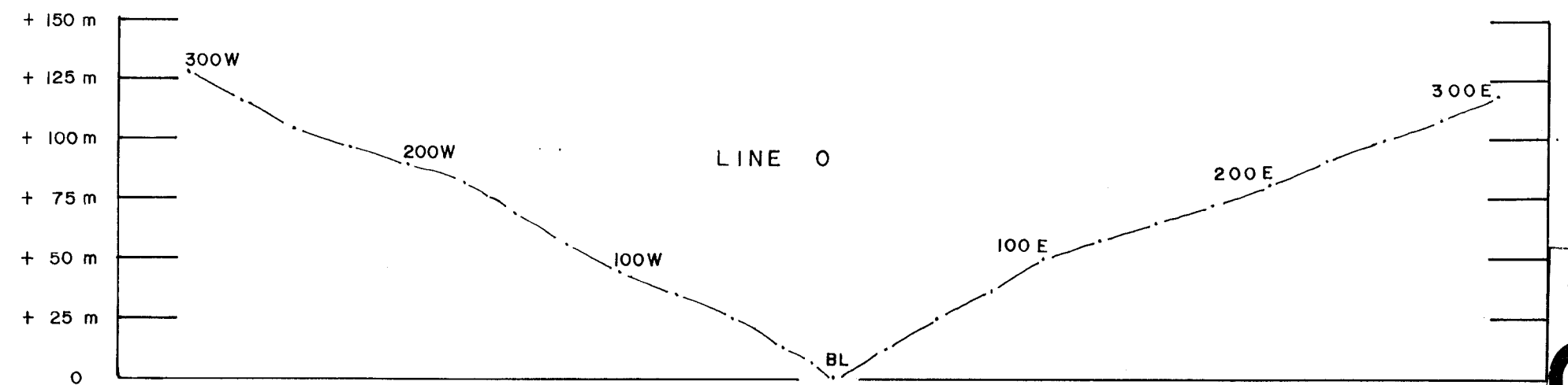
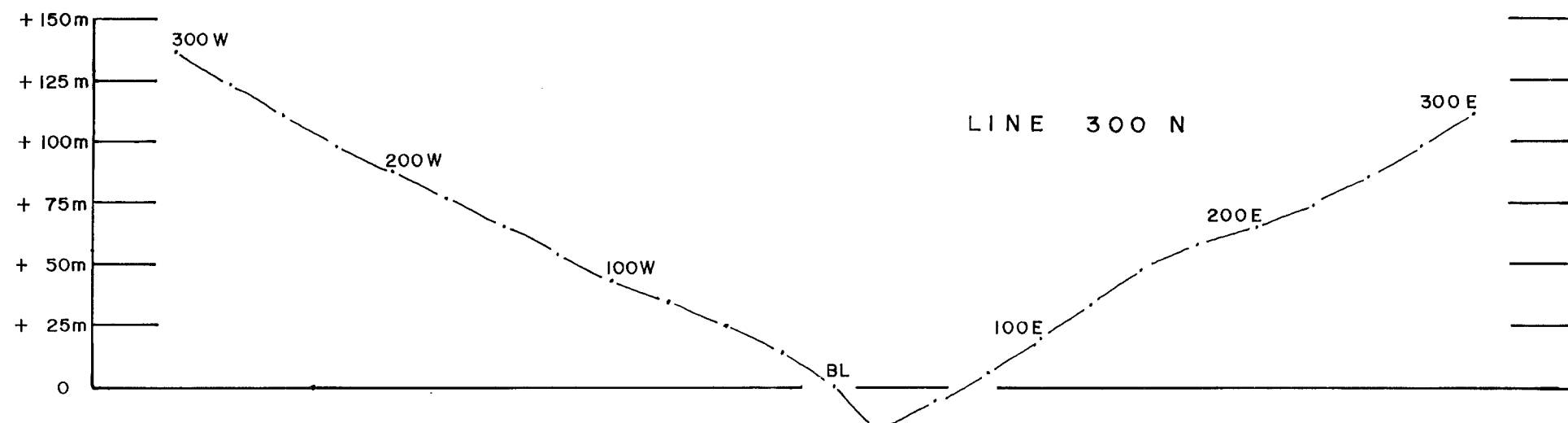
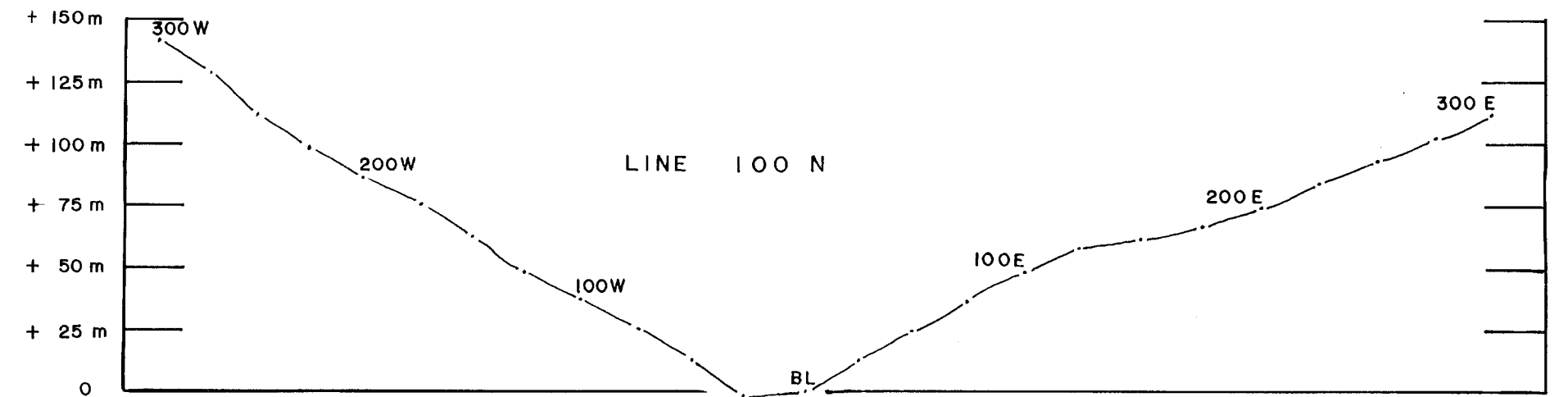
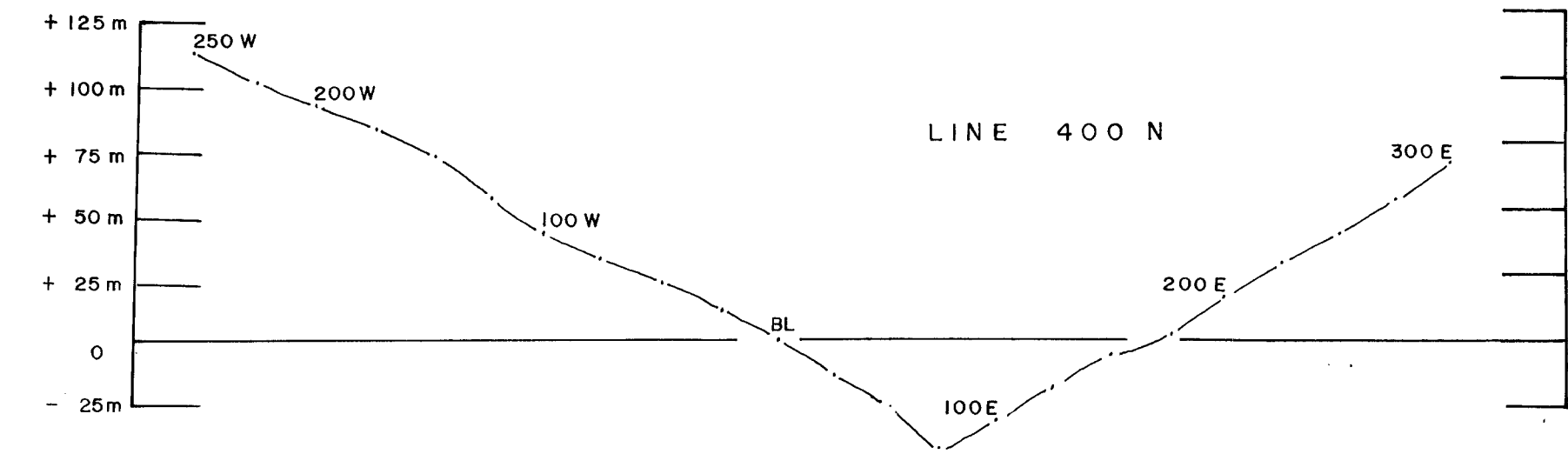
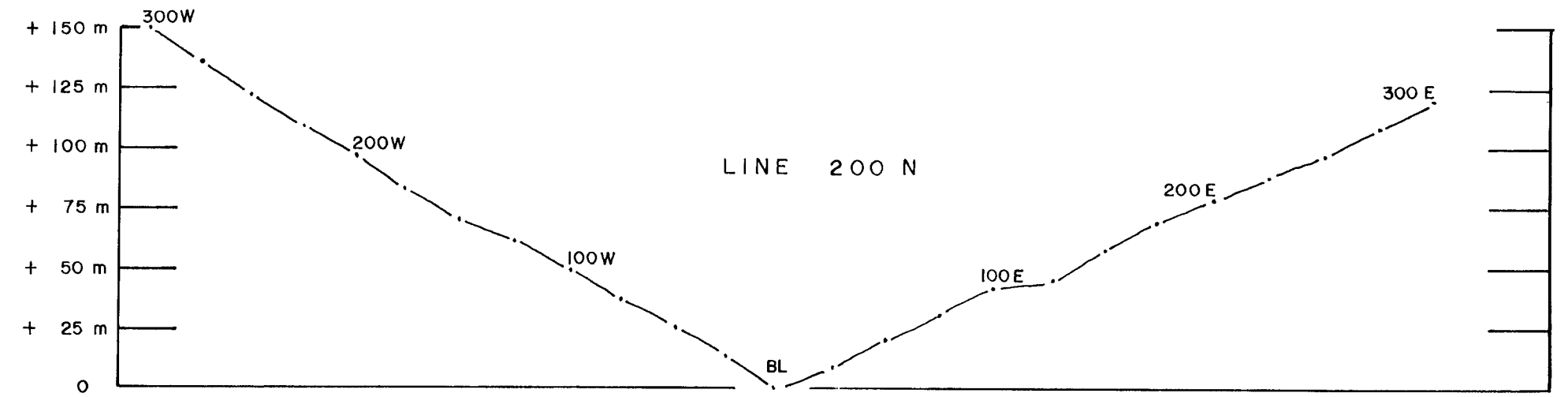
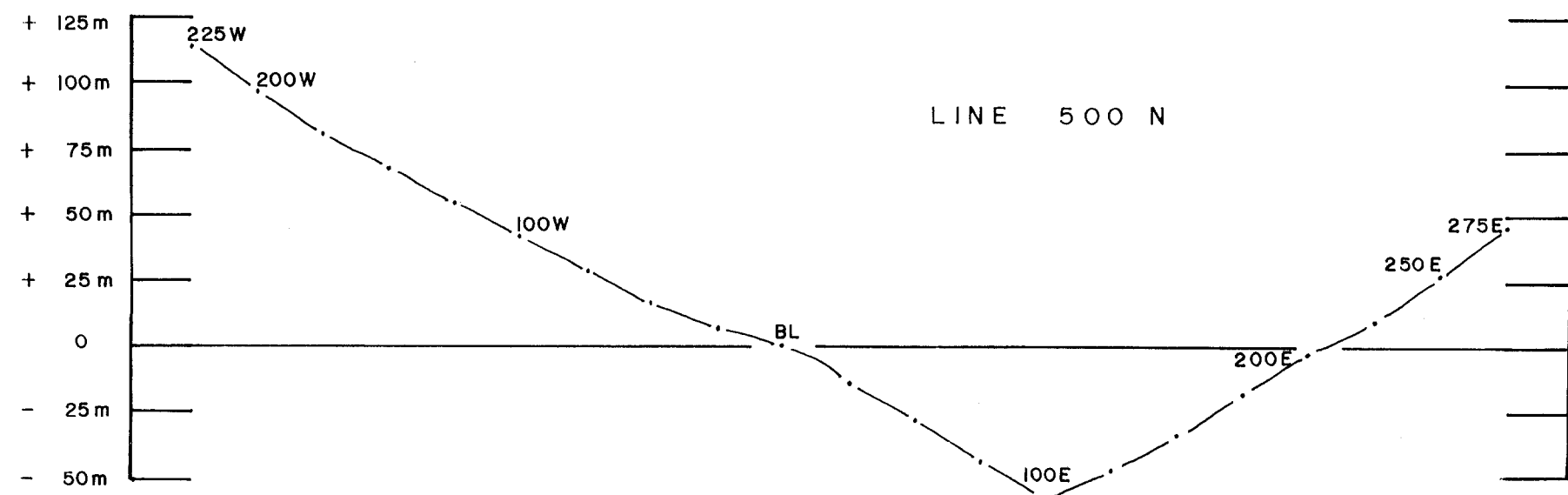
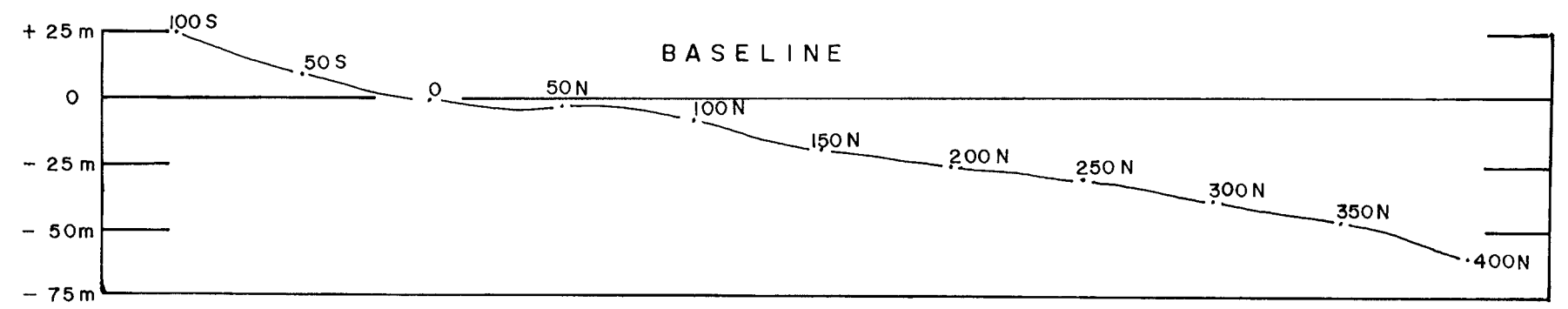
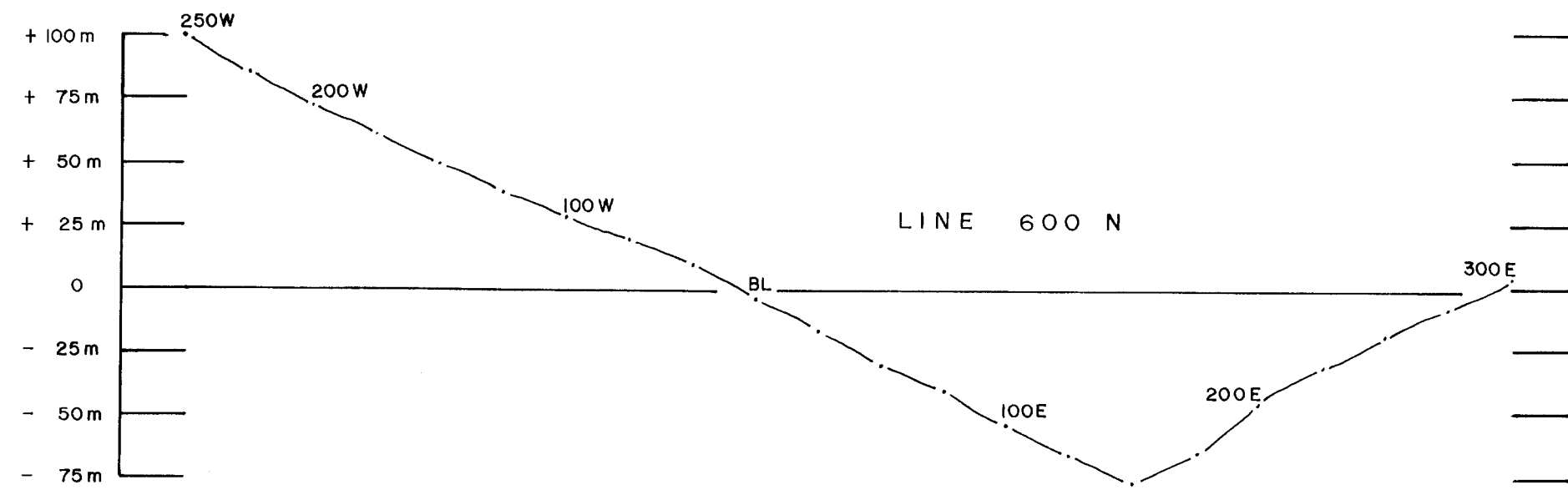


- 1979/80 GEOPHYSICS GROUND GRID
- HUNGRYMAN CLAIMS (CROWN GRANT)  
(APPROXIMATE LOCATION)
- CONNOR GROUP (APPROXIMATE LOCATION)


MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**9031**  
NO.

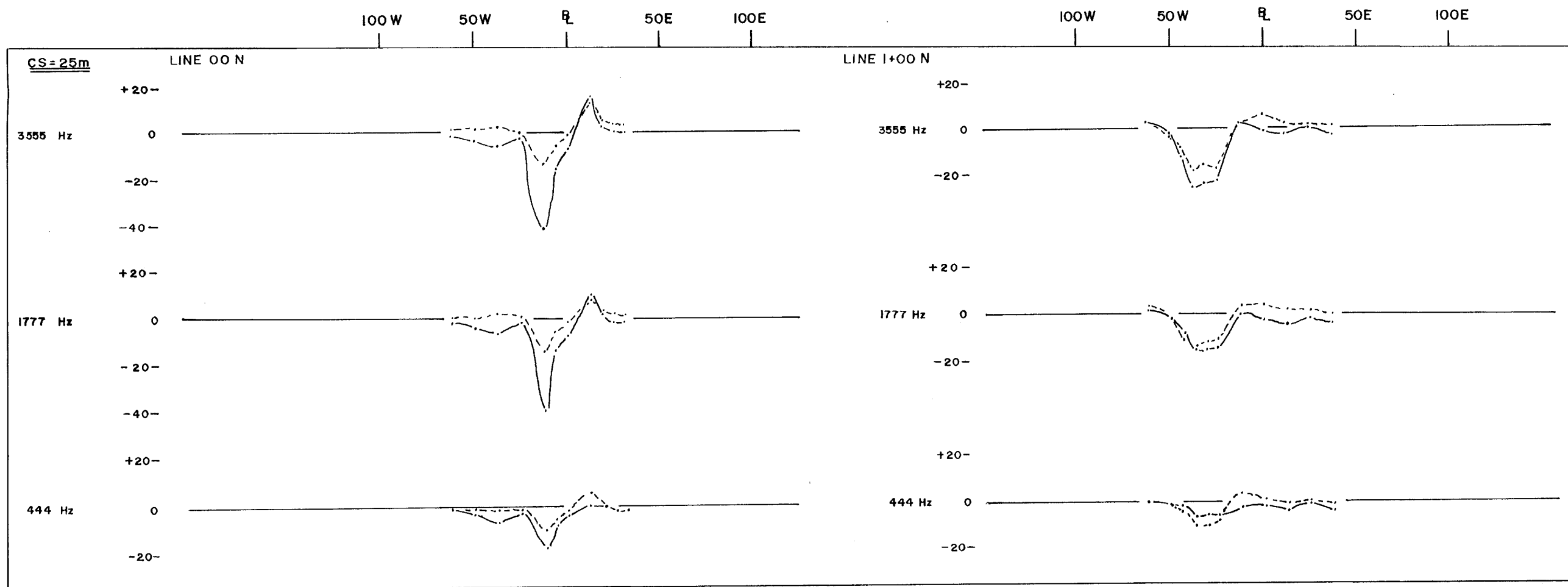
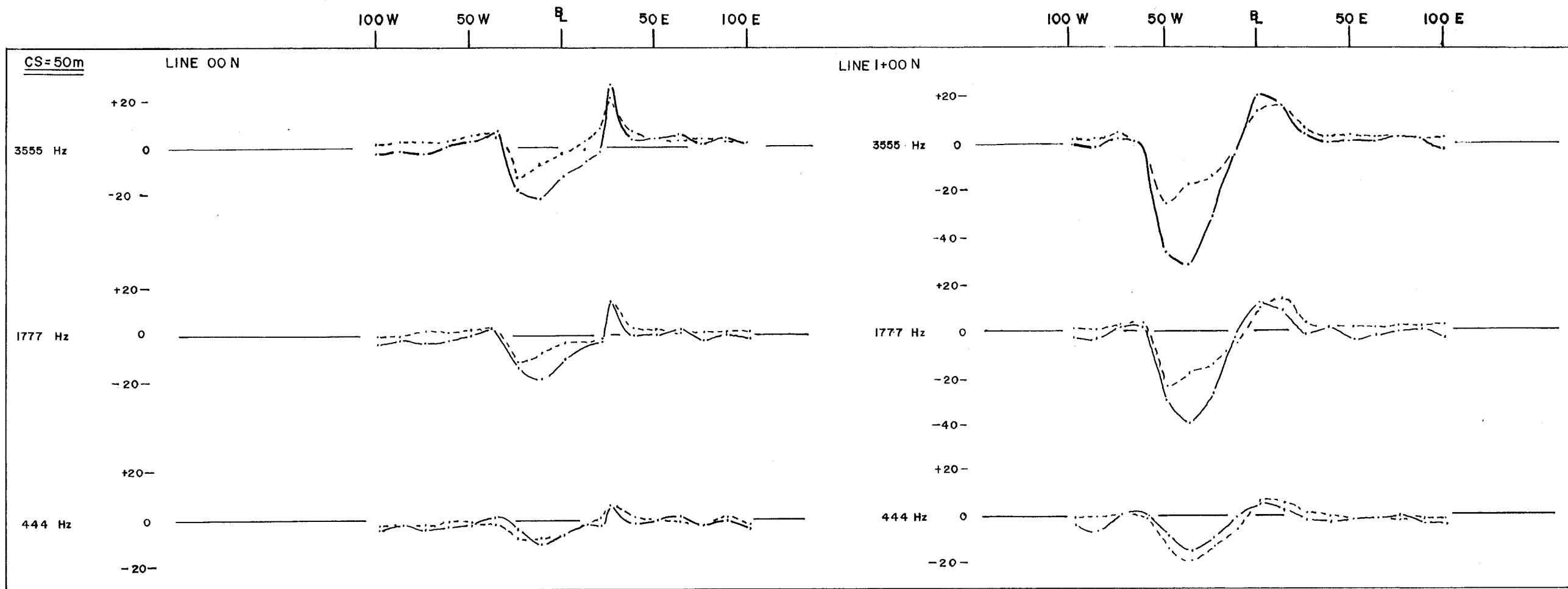


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Drawn by:		Traced by:		<b>HUNGRYMAN (CROWN GRANT)</b>	
Revised by	Date	Revised by	Date	<b>CLAIM MAP</b>	
				<b>NELSON M.D., B.C.</b>	
Scale: 1 : 2500		Date: MARCH 1981		Plate: 191-80-2	



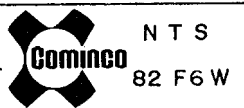
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<b>CONNOR GROUP</b>				 NTS 82 F6W	
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CONNOR GROUP



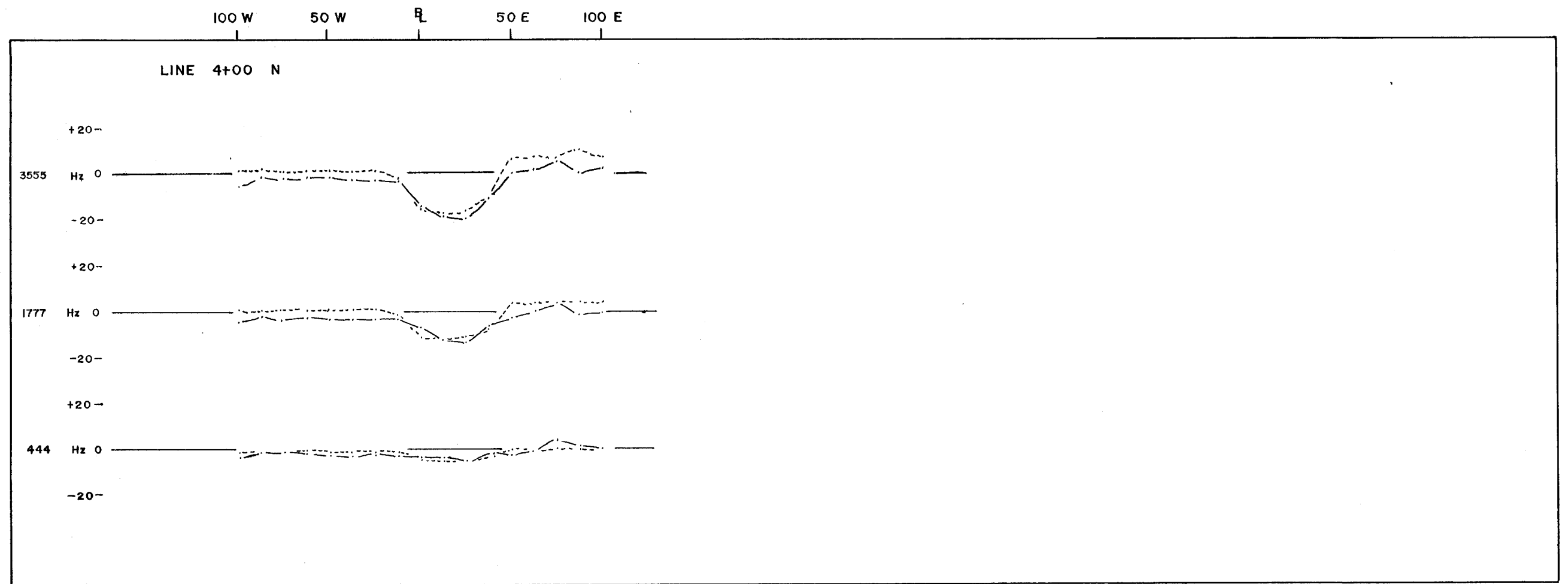
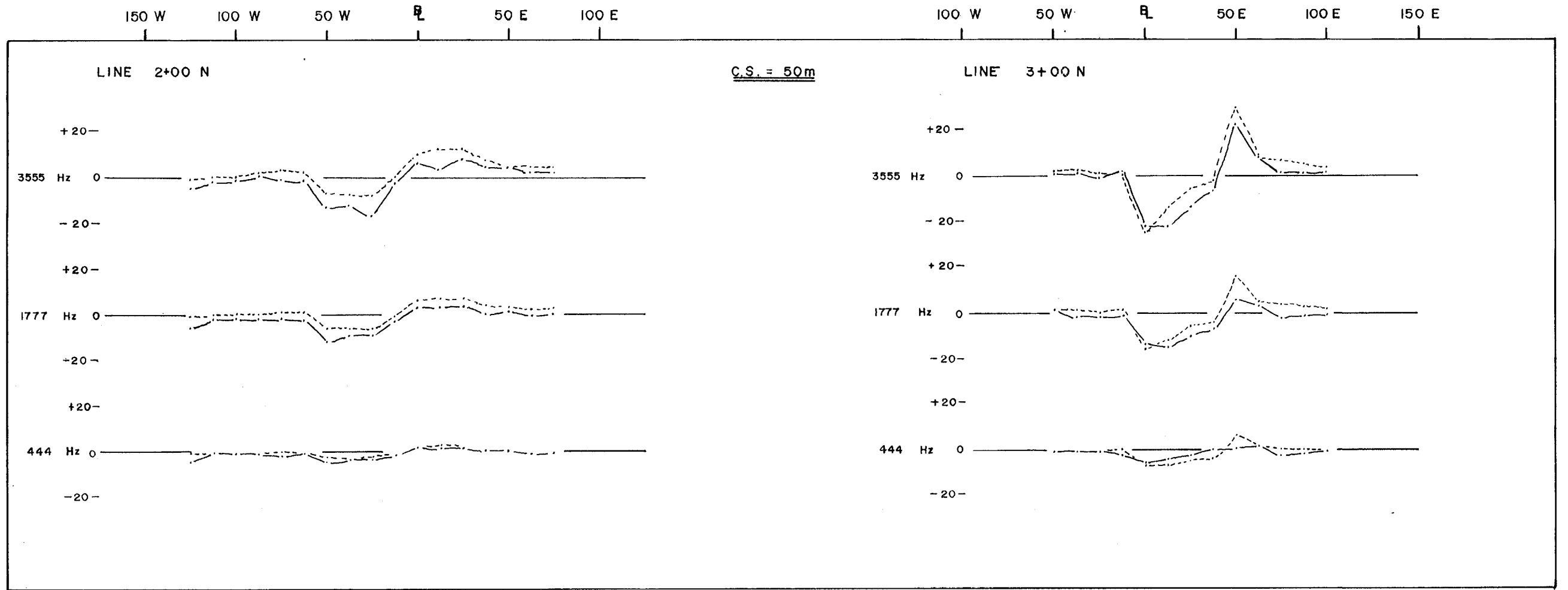
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HUNGRYMAN (CROWN GRANT)  
HORIZONTAL LOOP E.M. (MAX MIN II)  
NELSON M.D., B.C.

Scale: 1:2500


Date: MARCH, 1981

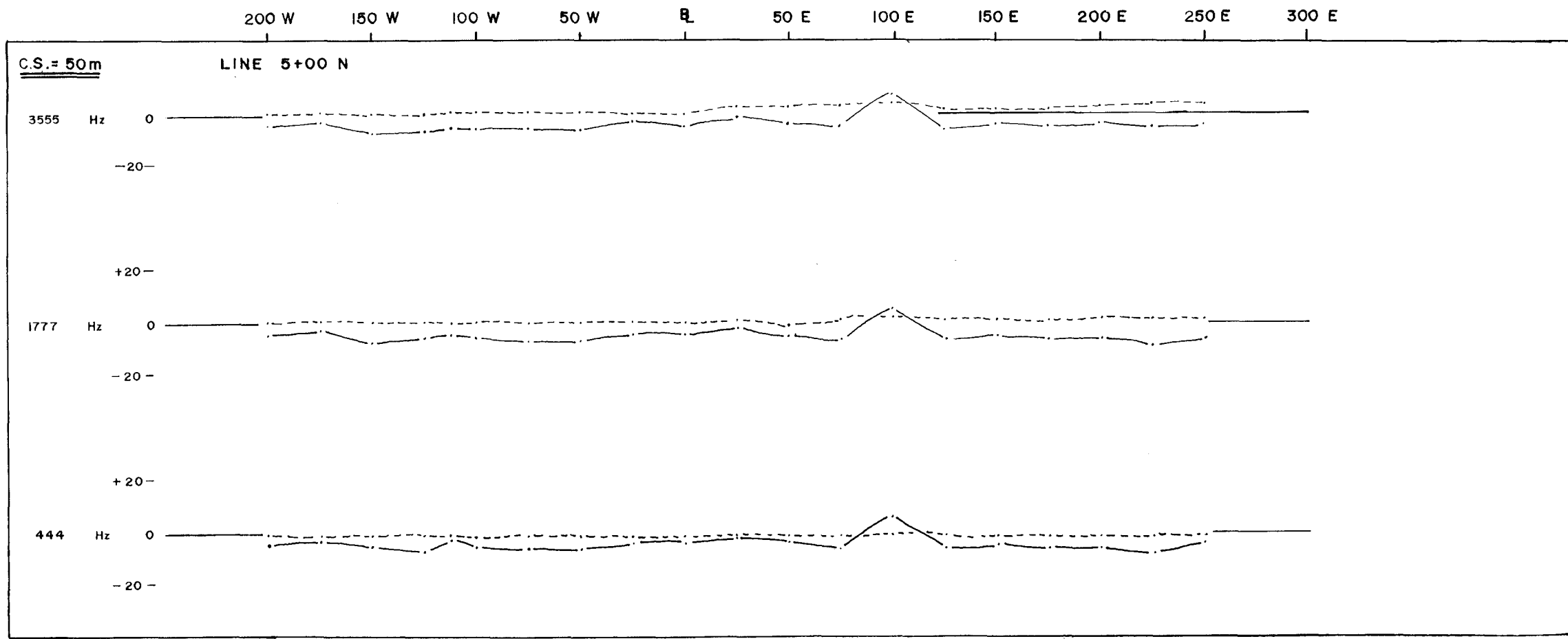
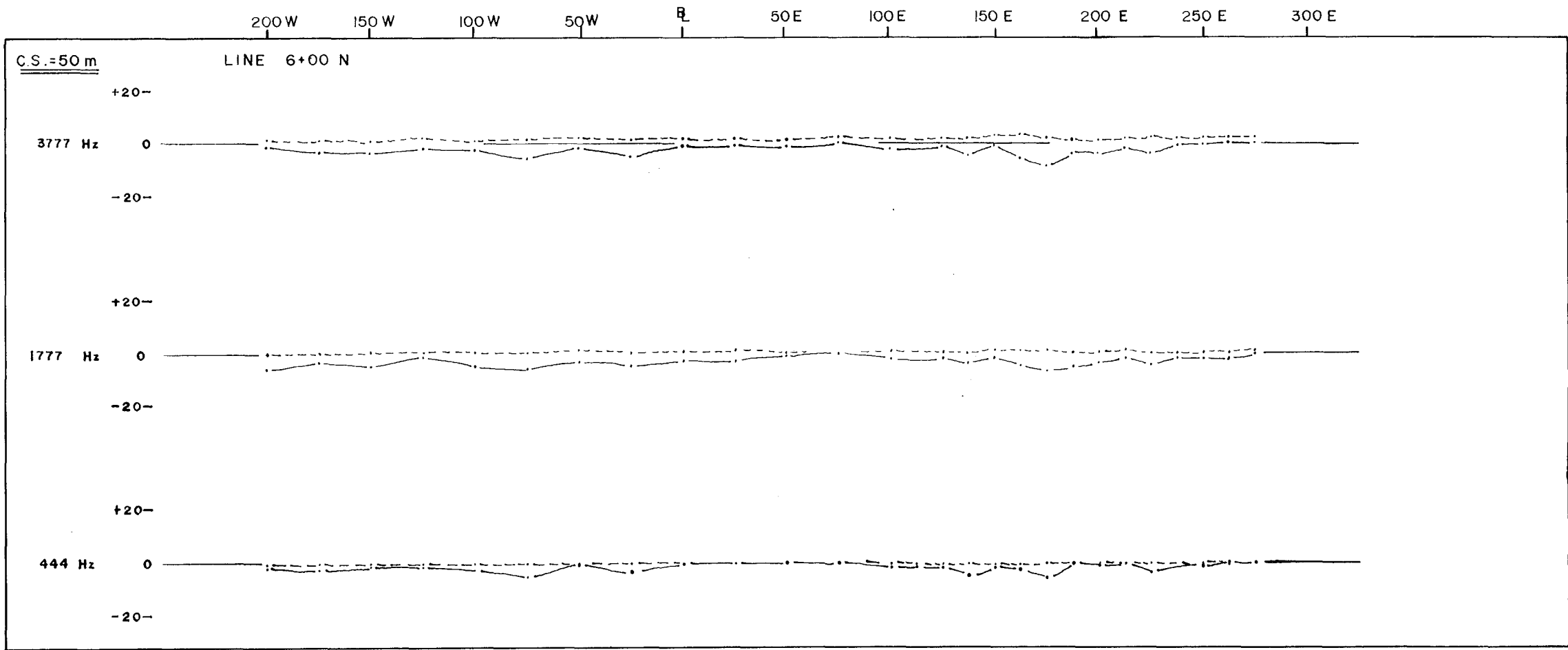
Plate: 191-80-4



MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT

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<b>CONNOR GROUP</b>				 N T S 82 F6W	
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Revised by	Date	Revised by	Date		
Scale: 1 2500		Date: MARCH, 1981		Plate: 191-80-5	



MINERAL  
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<b>CONNOR GROUP</b>				<b>NTS</b> 82 F 6W
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Revised by	Date	Revised by	Date	
Scale: 1 : 2500			Date: MARCH, 1981	Plate: 191-80-6