

84-#275-12200

REPORT OF WORK  
GEOPHYSICAL SURVEYS  
ON THE  
BC - 1 PROPERTY  
N.T.S. 82M/5W  
Long. 119 58' : Lat 51 22'

H

( Kamloops Mining Division )

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**12,200**

Submitted by : L. Bradish  
Division Geophysicist  
Western Division  
Vancouver, B.C.  
April 16, 1984

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REPORT OF WORK  
GEOPHYSICAL SURVEYS  
ON THE  
BC - 1 PROPERTY  
N.T.S. 82M/5W

1.0 INTRODUCTION :

During the period September 29 to October 1, 1983 approximately 12.800 Kilometers of VLF-EM and magnetometer surveys and flagged grid were completed on the BC-1 claim. This claim was staked in April 1983 ( RN 4400, exp. April 1984) by Leo Loranger and is under option to Noranda Exploration Co. Ltd. (NPL).

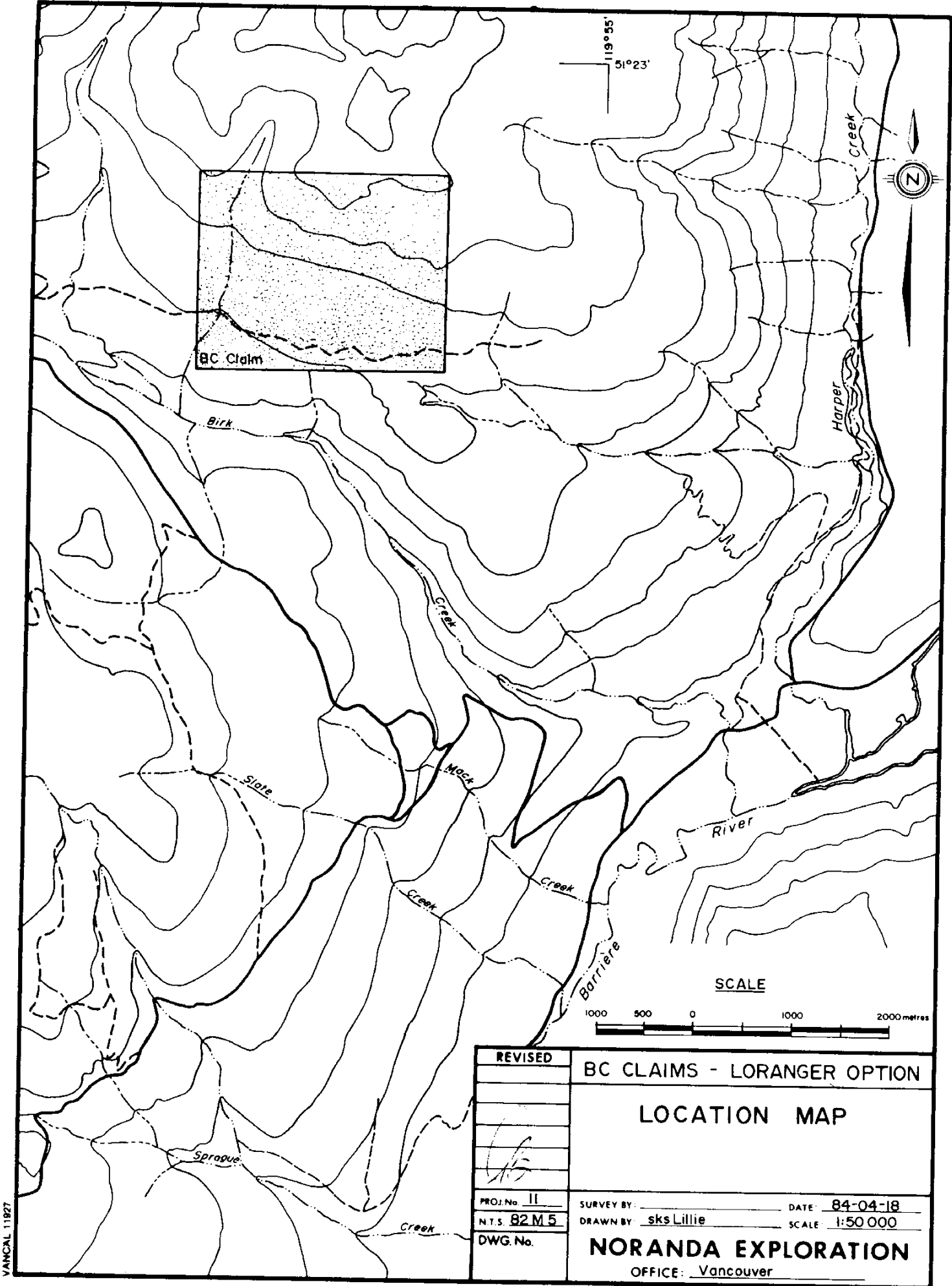
The target is high grade polymetallic mineralization.

2.0 LOCATION AND ACCESS :

The claim is located 80 Km. NNE of Kamloops, B.C. on the 82M/5W map sheet. Specifically it lies 5500 meters west of Harper Creek and 1500 meters north of Birk Creek (fig 1). Access to the property and grid is via logging roads which cross the property.

3.0 SURVEY SPECIFICATIONS :

The Geophysical surveys were carried out by and under the supervision of Leo Loranger of Leo Loranger Contract Mining Services of Kamloops, B.C.. Grid lines were compassed and chained with stations flagged at 25 meter intervals. The line spacing is 200 meters and is controlled by a 1.200 Km long Baseline (Az 0 degrees).



REVISED	BC CLAIMS - LORANGER OPTION	
	LOCATION MAP	
PROJ. No. 11	SURVEY BY: _____	DATE: 84-04-18
N.T.S. 82 M 5	DRAWN BY: sks Lillie	SCALE: 1:50 000
DWG. No.	<b>NORANDA EXPLORATION</b>	
	OFFICE: Vancouver	

VANCAL 11927

### 3.1 VLF-EM SURVEY :

The VLF-EM survey employed a Ronka EM receiver. The data recorded consists of the dip angle of the resultant field and the quadrature component. The Fraser Filter data is presented in plan and is contoured at intervals of 20. The dip angle and quadrature data is profiled (map 2) at a vertical scale of 1cm = 20%. The transmitter station used for the signal source was NPG, Cutler, Maine.

### 3.2 MAGNETOMETER SURVEY :

The instrument employed was an Exploranium G.836 Total Field Magnetometer which has a resolution of 10 nT. Readings were not corrected for the diurnal or the day to day magnetic variations. The data is presented in plan at a scale of 1:5000 with a magnetic datum of 57.000 nT. The contour level begins at 1000 nT and increments at 500 nT steps. The Mag map also shows the current axes as defined by the VLF-EM survey.

### 4.0 DISCUSSION OF RESULTS :

Several features of interest were identified by the two Geophysical surveys.

- A strong NW-SE trending VLF-EM anomaly (#1) located in the central portion of the grid was recorded over a minimum strike length of 1400 meters and which is open to the north and south. The Magnetometer survey has recorded a narrow anomaly of 2000 nT in amplitude ( L.9600N/10050E ) coincident with this VLF-EM anomaly (#1).

- The VLF-EM axis #2 was defined over a strike length of 200+ meters and may extend further but off of the survey grid. A low amplitude magnetic high is recorded coincident with the zone on L.9800N (50 nT) and on L.10200N (440 nT). This response is comparable to the VLF-EM axis #1.

- VLF-EM axis #3 is recorded on two lines (L.10000N and L.10200N) . This axis is shown as a single zone but may prove to be two short parallel anomalies. A coincident mag response is noted on L.10200N.

- Anomalies 4 and 5 are recorded on the southern-most line (9400N). No magnetic response of interest is noted.

- Other VLF-EM crossovers were recorded however the measured amplitudes and wavelengths are such that additional geophysical data are required to create more interest.

#### CONCLUSIONS AND RECOMMENDATIONS :

The responses from the five flagged anomalies (1..5) are narrow and have a reasonable amplitude ( >20 degree peak to peak dip angle). These zones along with the remainder of the grid should be surveyed employing a controlled source EM ( i.e. HLEM ) to better define the various parameters of the anomalous sources.

  
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L. Bradish  
Division Geophysicist.

APPENDIX 1

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STATEMENT OF COSTS

NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COST

DATE MARCH 1984

PROJECT - BC-1 CLAIMS - LORANGER OPTION  
TYPE OF REPORT Geophysics

a) Wages:

No. of Days -  
Rate per Day -  
Dates From -  
Total Wages

b) Food and Accommodation:

No. of Days -  
Rate per Day -  
Dates From -  
Total Cost -

c) Transportation:

No. of Days -  
Rate per Day -  
Dates From -  
Total cost

d) Analysis

e) Cost of Preparation of Report

|          |          |
|----------|----------|
| Author   | \$461.64 |
| Drafting | \$227.88 |
| Typing   | \$       |

f) Other: Contractor \$3,072.00

Total Cost \$3,761.52



UNIT COSTS

Unit Costs for Geophysics


|                |                      |                   |
|----------------|----------------------|-------------------|
| No. of Days -  |                      |                   |
| No. of Units - | 12.8 line kilometres |                   |
| Unit Costs -   | 293.87 / km          |                   |
| Total cost     | 12.8 X 293.87        | <u>\$3,761.52</u> |

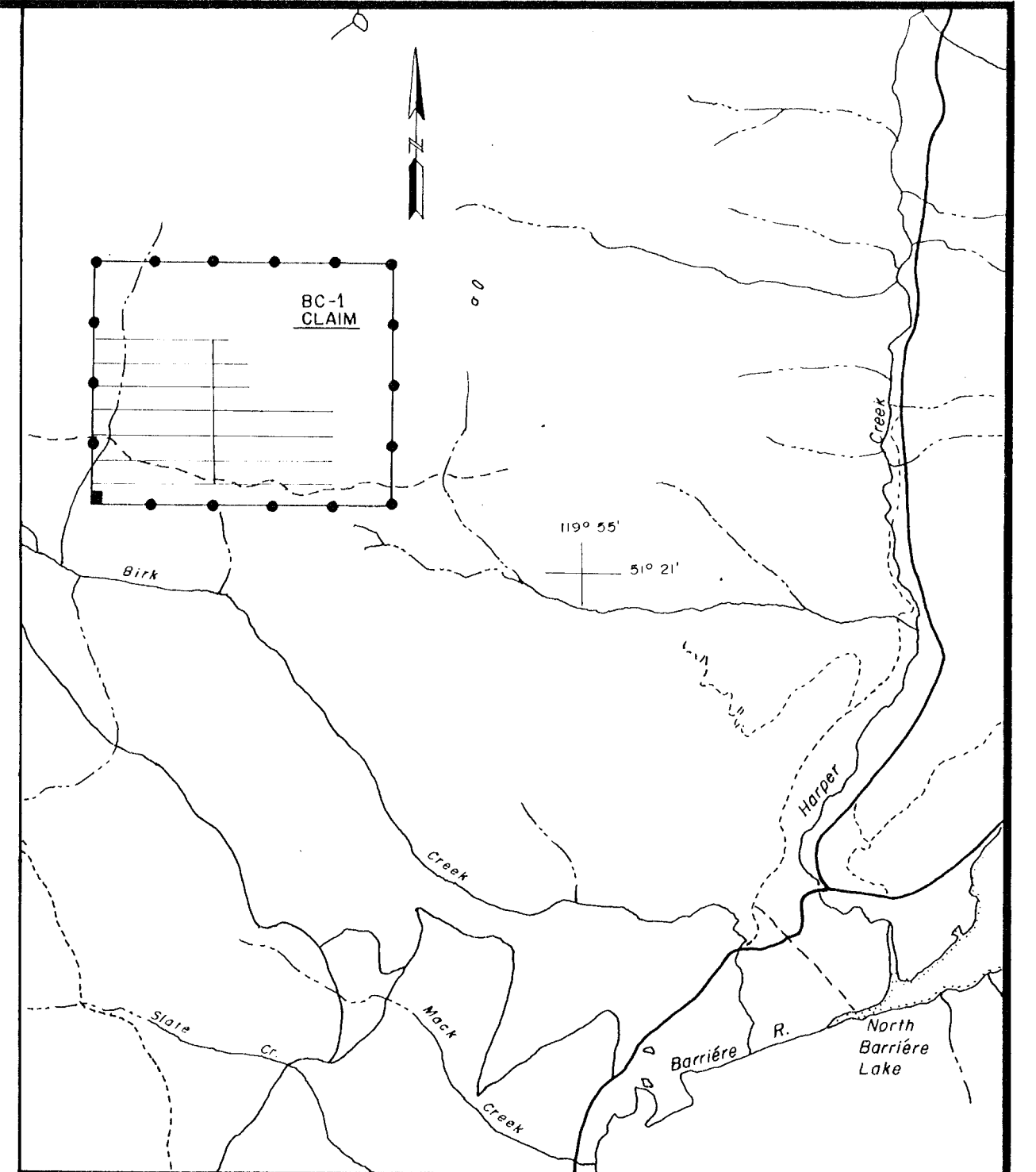
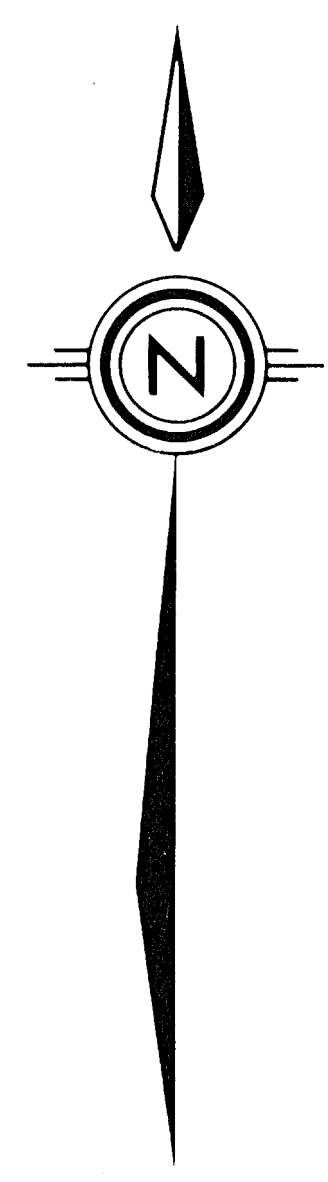
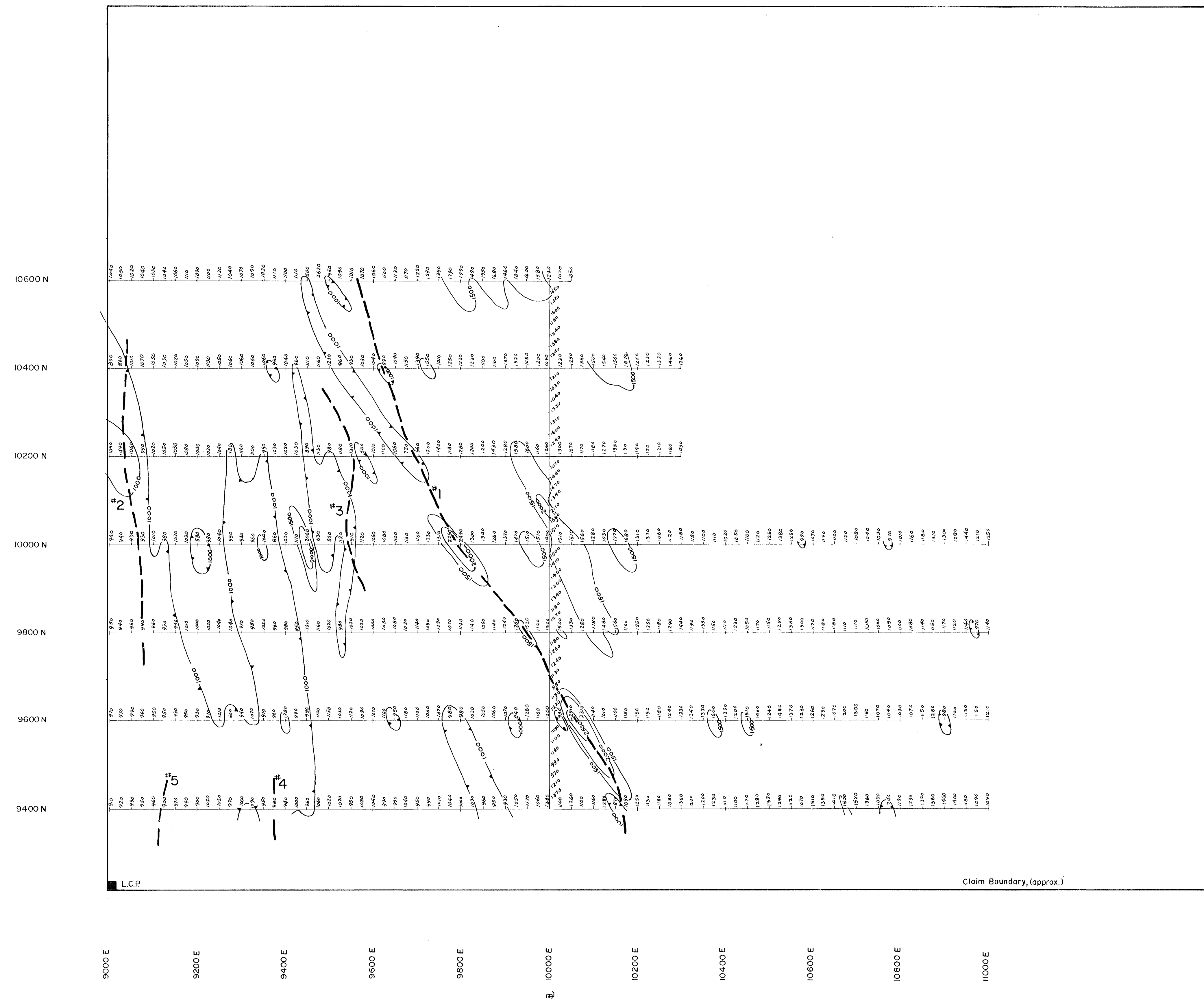
APPENDIX 2  
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STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS  
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I, Lyndon Bradish of Vancouver, Province of British Columbia, do hereby certify that:

1. I am a Geophysicist residing at 1826 Trutch St. Vancouver, B.C.
2. I am a graduate of the University of British Columbia with a B.Sc. (geophysics).
3. I am a member in good standing of the Society of Exploration Geophysicists, Canadian Institute of mining and the Prospector's and Developer's Association.
4. I presently hold the position of Division Geophysicist with Noranda Exploration Co. Ltd. and have been in their employ since 1973.

  
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L. Bradish.



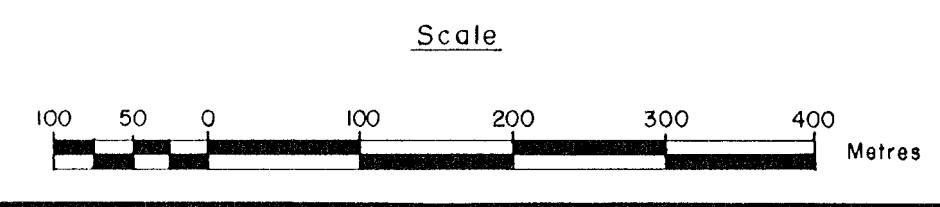
LOCATION MAP  
1:50,000

**LEGEND**

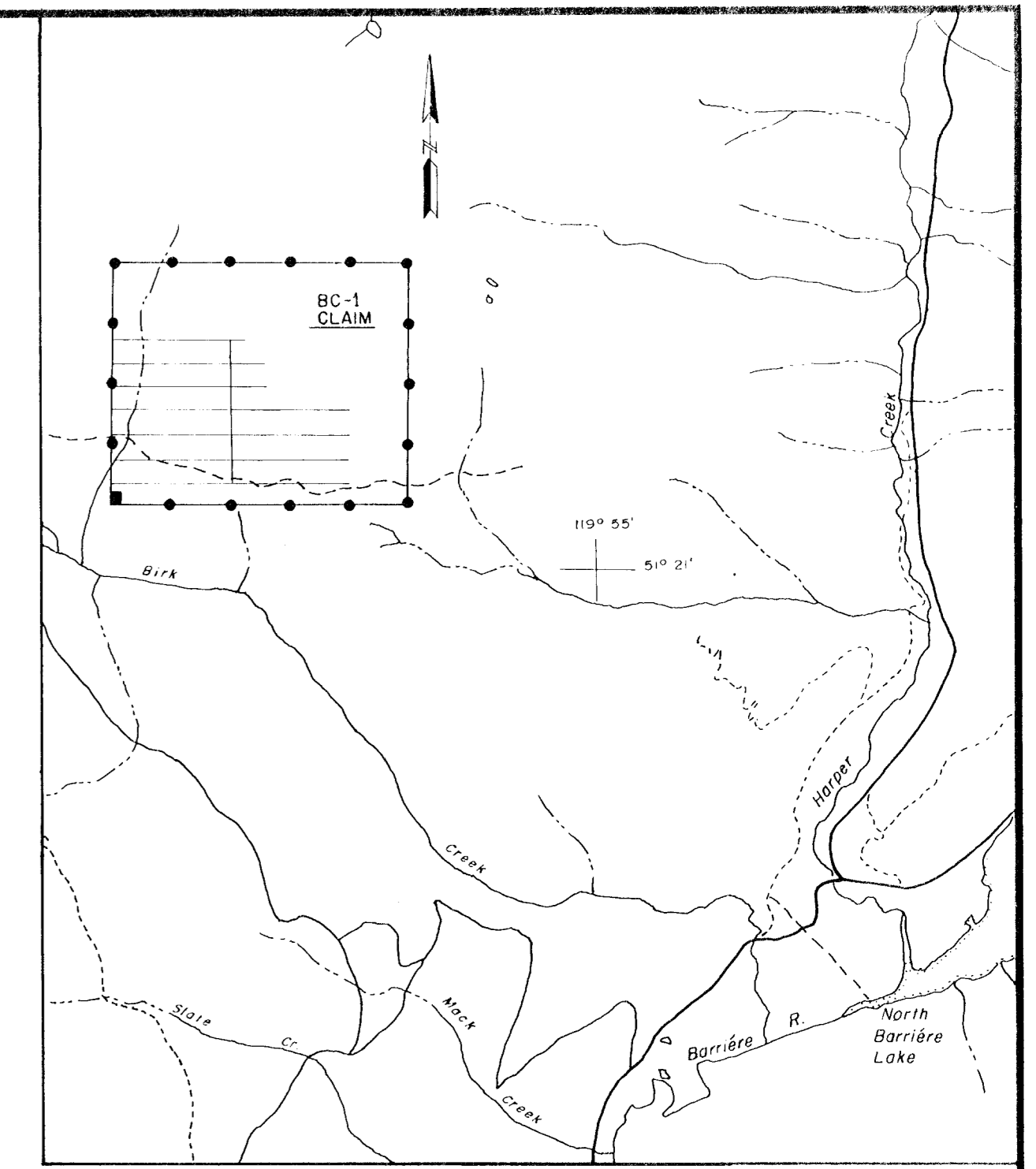
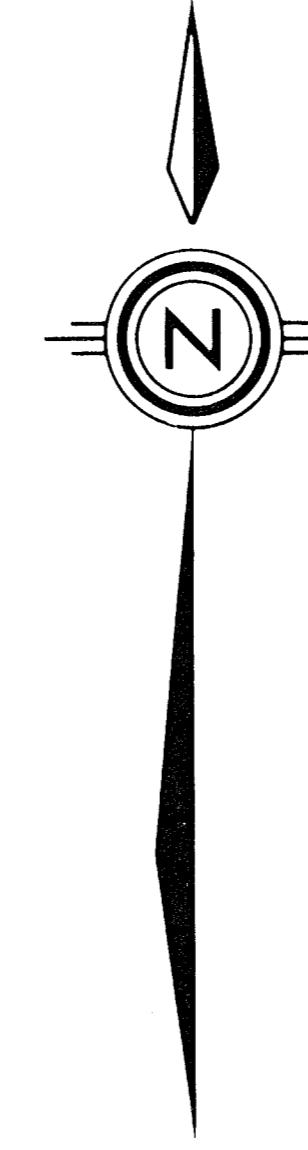
- Instrument : G-836
- Field Measurement : Total
- Datum : 57,000<sup>AS</sup>
- Contours : 1000<sup>AS</sup>, 1500<sup>AS</sup>, 2000<sup>AS</sup>, 2500<sup>AS</sup>
- Conductor Axis(VLF-EM) : ———
  
- Survey Date : 1983
- Operator : L. Loranger

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

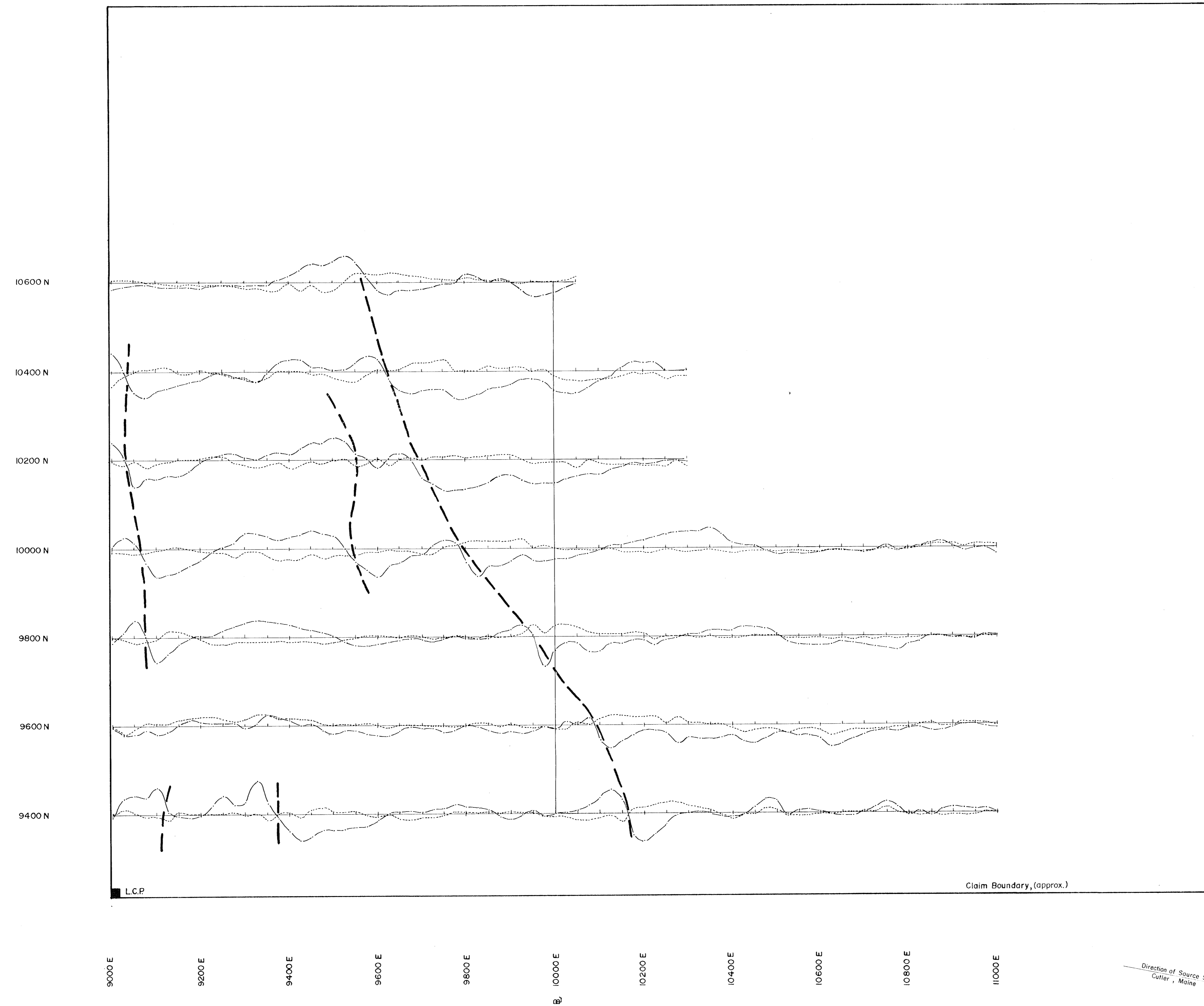
**12,200**



|                    |                                   |               |
|--------------------|-----------------------------------|---------------|
| REVISED            | BC CLAIMS LORANGER OPT.           |               |
| <i>[Signature]</i> | BC-1 CLAIM<br>MAGNETOMETER SURVEY |               |
| PROJ. No. 11       | SURVEY BY: L. Loranger            | DATE: Feb./84 |
| N.T.S. 62 M/S      | DRAWN BY: (trace) W.M.R.          | SCALE: 1:5000 |
| DWG. No. 1         | <b>NORANDA EXPLORATION</b>        |               |
|                    | OFFICE: Vancouver, B.C.           |               |



LOCATION MAP  
1:50,000



**LEGEND**

- Instrument : Ronka EM-16 VLF
- + Readings (north) : Plotted above the line
- Readings (south) : Plotted below the line
- : In phase profile
- : Quadrature profile
- Profile Scale : 1 cm = 20°
- Conductor Axis : ———
- Survey Date : 1983
- Operator : L. Loranger
- Source Station : Cutler, Maine

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

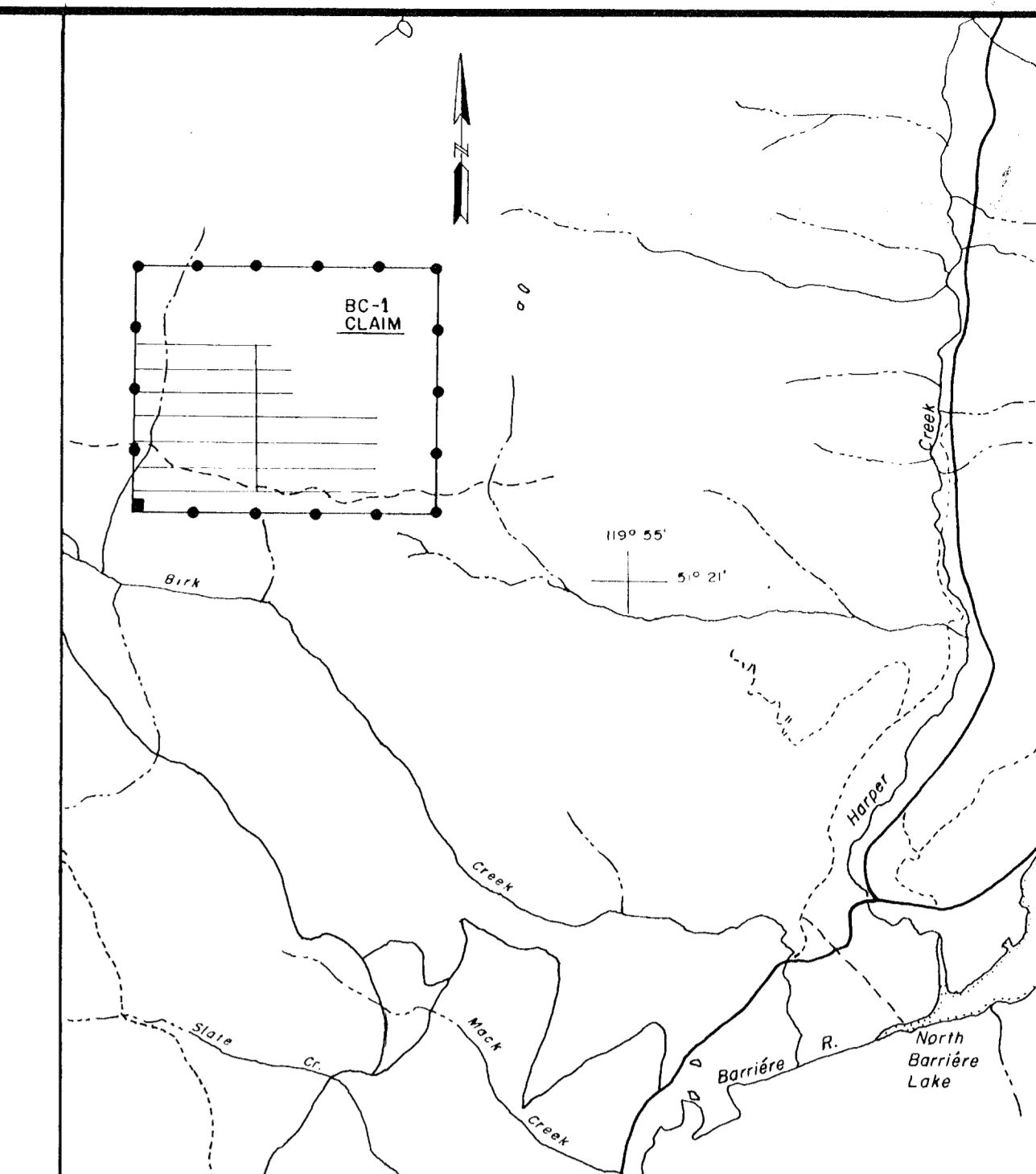
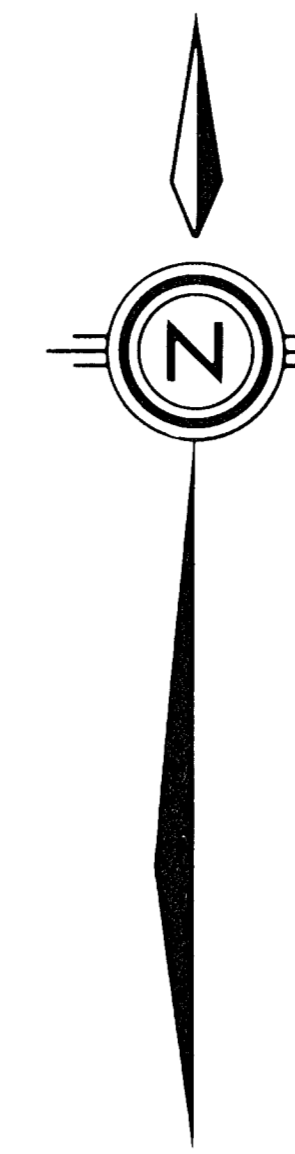
**12,200**

|               |                             |               |
|---------------|-----------------------------|---------------|
| REVISED       | BC CLAIMS LORANGER OPT.     |               |
|               | BC-1 CLAIM<br>V.L.F. SURVEY |               |
| PROJ. No. II  | SURVEY BY: L. Loranger      | DATE: Feb /84 |
| N.T.S. 82 M/3 | DRAWN BY: (traced) W.M.R.   | SCALE: 1:5000 |
| DWG. No. 2    | <b>NORANDA EXPLORATION</b>  |               |
|               | OFFICE: Vancouver, B.C.     |               |

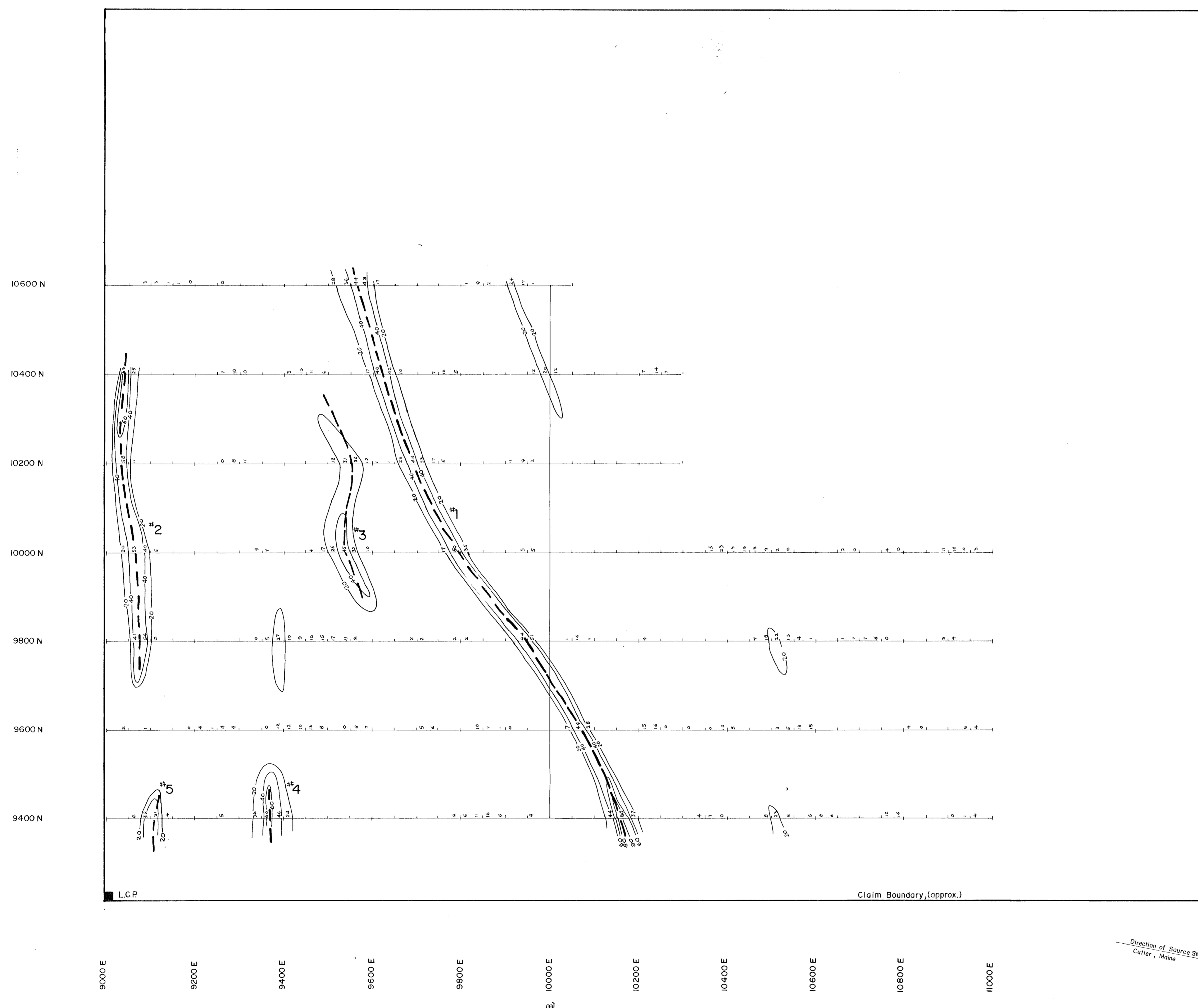


Scale

Direction of Source Station NAA  
Cutler, Maine



LOCATION MAP  
1:50,000



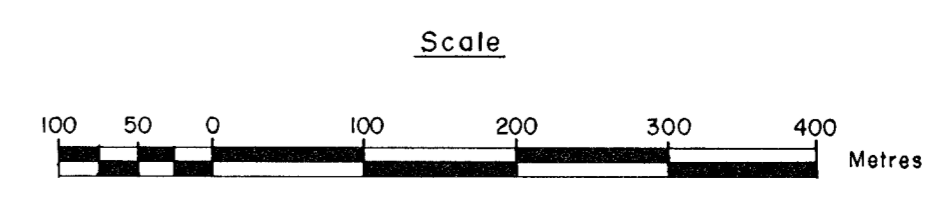
**LEGEND**

- Instrument : Ronka EM -16
  - Readings : Fraser Filter data
  - Contour Interval : 20 , 40 , 60 , 80
  - Conductor Axis-(VLF) : ———
- Survey Date : 1983
  - Operator : L. Loranger
  - Source Station : Cutler, Maine

**GEOLOGICAL BRANCH  
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# 12,200

Direction of Source Station NAA  
Cutler, Maine



|                    |                                               |               |
|--------------------|-----------------------------------------------|---------------|
| REVISED            | BC CLAIMS LORANGER OPT.                       |               |
| <i>[Signature]</i> | BC-1 CLAIM<br>V.L.F SURVEY<br>(FRASER FILTER) |               |
| PROJ. No. 11       | SURVEY BY: L. Loranger                        | DATE: Feb./84 |
| N.T.S. 82 M/S      | DRAWN BY: (traced) W.M.R.                     | SCALE: 1:5000 |
| DWG. No. 5         | <b>NORANDA EXPLORATION</b>                    |               |
|                    | OFFICE: Vancouver, B.C.                       |               |