

83-#728 - 11760  
11/24

ASSESSMENT REPORT

GEOCHEMICAL SURVEY

ON THE

SHERPA 1

SHERPA 2

MINERAL CLAIMS

N.T.S. 82L/10E

Lat.  $50^{\circ}38'N$ , Long.  $118^{\circ}40'W$

VERNON MINING DIVISION

BY

DOUGLAS BRYAN

NORANDA EXPLORATION COMPANY, LIMITED  
(No Personal Liability)

Oct. 1 - Oct. 31, 1983

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**11,760**

### ABSTRACT

Two hundred and forty-three soil samples were collected from a reconnaissance grid covering the SHERPA 1 and 2 mineral claims. All samples were analysed for copper, lead, zinc, silver and molybdenum. Several coincident lead and zinc soil geochemical anomalies have been outlined. Further geochemical sampling combined with detailed geological surveys are warranted.

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## I INTRODUCTION

The SHERPA 1 and SHERPA 2 mineral claims comprising 40 units, were staked during late 1982 by John Leask. The claims were staked to cover an area where a number of high grade sphalerite-galena-pyrrhotite-pyrite boulders have been discovered. The property lies within the Shuswap Metamorphic Complex and appears to be underlain predominantly by hornblende-biotite-quartz schist.

In October of 1983 Noranda Exploration Company, Limited (No Personal Liability) optioned the property from John Leask. Subsequent to this a grid was established over the SHERPA 1 and 2 claims. Two hundred and forty-three soil samples, collected on the grid were analysed for copper, lead, zinc, silver and molybdenum.

## 2 LOCATION AND ACCESS

The SHERPA 1-2 mineral claims are centered on longitude  $118^{\circ}40'W$  and latitude  $50^{\circ}38'N$  within N.T.S. map sheet 82L/10E. The claims are situated on the east side of Mabel Lake, immediately north of Tsuius Creek, approximately 50km. by road northeast of Lumby, B.C. The Mabel Lake road, from Lumby, runs through the west-central portions of both the SHERPA 1 and SHERPA 2 claims.



**LOCATION MAP**  
**SHERPA 1,2 CLAIMS**  
**NTS 82L-10 1:250,000**  
**NOV. 83 D Bryan**

3 TOPOGRAPHY

The SHERPA claims flank the western side of Mount Mabel (2137m.). Topography on the claims is moderately rugged with a constant slope to the east, towards Mabel Lake. Maximum relief on the claim group is about 750m.

4 CLAIMS INFORMATION

The SHERPA 1 and 2 mineral claims recorded by John Leask, Apt. 402 - 4200 Mayberry St., Burnaby, B.C. have been optioned by Noranda Exploration Company, Limited (No Personal Liability).

<u>CLAIM NAME</u>	<u>RECORD NUMBER</u>	<u>RECORD DATE</u>
SHERPA 1	1304	Nov. 4, 1982
SHERPA 2	1305	Nov. 4, 1982

5 GEOCHEMICAL SURVEY

5.1 CONTROL GRID

During October, 1983 a control grid was established on the SHERPA claims. A north-south baseline extends 3.6 km. from the southern end of the SHERPA 1 claim to a point on Mabel Lake. At this point the baseline was shifted 700m. east and then extended north a further 1.4 km., to the northern border of the SHERPA 2 claim. Stations were located at 50m. intervals along the baseline. Winglines, running east-west, were established at 200m. intervals along the baseline.



### 5.1 Control Grid Cont'

Stations were established at 25m. intervals along the wing-lines. All lines were established using metric chains and compass.

### 5.2 SOIL GEOCHEMICAL SAMPLING

Two hundred and forty-three samples, collected from the grid were analysed for ppm copper, lead, zinc, silver and molybdenum in the Noranda Exploration Company, Limited laboratory located at 1050 Davie Street, Vancouver, B.C.

Soil samples, taken at 50m. intervals on wing-lines and 50m. intervals on the baseline, where possible, were obtained by digging holes with a maddock to depths between 10 and 30 cm. where the visible B horizon, when ever possible, was exposed. The samples were placed in "Hi Wet Strength Kraft 3½" X 6 1/8" Open End" envelopes and the grid co-ordinate was marked on the envelope with an idelible felt pen.

### 5.3 LABORATORY ANALYTICAL METHODS

Soil samples were placed in a drying cabinet for a period of 24 to 48 hours. The sample material is then screened and sifted to obtain a -80 mesh fraction.

The determination procedure for total copper, zinc, lead, silver and molybdenum is as follows:

### 5.3 Laboratory Analytical Methods Cont'

0.200 grams of -80 mesh material is digested in 2 ml. of HCl  $O_4$  and 0.5 ml. of HNO $_3$  for approximately 4 hours. Following digestion, each sample is diluted to 5 ml. with demineralized H $_2$ O. A Varian Techtron Model AA-5 Atomic Absorption Spectrophotometer was used to determine the parts per million, copper, lead, zinc, silver and molybdenum content in each sample.

The theory of Atomic Absorption Spectrophotometer is fully outlined in the literature and will not be described in this report.

### 5.4 PRESENTATION OF RESULTS

Geochemical results for the SHERPA claims soil samples are found in Appendix 1. Grid maps with results for lead zinc are appended to this report. Results for copper, silver and molybdenum generally fall within background levels and are not presented in map form.

### 5.5 DISCUSSION OF RESULTS

#### 5.5.1 MOLYBDENUM

The majority of molybdenum analyses are less than 2 ppm. No anomalous trends were defined.

#### 5.5.2 SILVER

Silver values are uniformly low ranging between 0.2 to 0.4 ppm. No anomalous zones were outlined.



## 5.5 Discussion of Results Cont'

### 5.5.3 COPPER

Copper values generally range between 18 and 50 ppm. with sporadic spot high values. No anomalous trends were defined.

### 5.5.4 LEAD

The mean value of the 243 samples from the SHERPA grid was 11 ppm. Using this figure the following arbitrary divisions were established:

3rd order anomaly 30 - 47 ppm  
2nd order anomaly 49 - 84 ppm  
1st order anomaly >85 ppm

Due to the sporadic nature of the readings contour intervals of 30 and 50 ppm. were used to outline any anomalous trends. An anomalous zone (Anomaly 1) as defined by the 30 ppm. contour, extends grid southwest from station 13700N/11000E to station 13150N/10000E, located on the shore to Mabel Lake. The anomalous zone has a width of 550m. along its western end and a minimum strike length of 1.30 km. Within this broad anomaly two stronger (>50 ppm. Pb) anomalies were outlined, the first (Anomaly 2) between 13600N/10800E and 13600N/10900E with the second anomaly (Anomaly 3) between 13000N/10250E and 13000N/10400E. Spot highs within this second anomaly reach 620 ppm. Pb.

A second anomalous trend (Anomaly 4) is located at the east end of L13600N beginning at station 13600N/11200E where a value of 88 ppm. Pb was recorded.

5.5 Discussion of Results 5.5.4 Lead Cont'

This anomaly extends a further 100m. upslope and has not yet been fully defined.

5.5.5 ZINC

The mean value for zinc was 223 ppm. From this figure the following divisions were established:

- 3rd order anomaly 450 - 725 ppm
- 2nd order anomaly 725 - 975 ppm
- 1st order anomaly >975 ppm

A 450 ppm. Zn contour was used to outline the anomalous trends.

There is a good correlation between the anomalous zinc values and anomalous lead values on the SHERPA grid. There is a broad zinc anomaly (Anomaly 1) (>450 ppm.) extending southwest from 14000N/10950E to 13150N/100000E. At its western end the anomalous zone has a width of 600m. and a length of 1.3 km. Within this broad zone lie 2 stronger anomalies with widths in the order of 100 to 150m. Both anomalies (Anomalies 2,3) are coincident with strong lead in soil anomalies. Zinc values within these anomalous zones ranges between 550 and 2000 ppm. Zn.

Anomaly 4 located on the east end of L13600N is coincident with a strong lead anomaly. The extent of this anomalous trend has not been fully defined.

6 SUMMARY

A coincident Pb-Zn soil anomaly (>30 ppm. Pb, >450 ppm. Zn) with widths up to 600m. and a length in the order of 1.3 km. has been outlined on the northern end of the SHERPA grid. Within this broad zone two smaller, stronger anomalies have been outlined. A second zone with high lead and zinc values has been located grid east of the broad anomalous trend. This second zone, extending upslope off the present grid, has not been fully defined.

7 RECOMMENDATIONS

Further geochemical sampling is warranted between lines 12500N to 14500N and 10000E to 12000E. East-west wingline should be established at 100m. intervals with samples taken every 50m. All lines should be extended to 12000E to cover the anomalous zone located at the end of line 13600N. Detailed mapping and prospecting of the grid, particularly between 12500N and 14500N is warranted.

APPENDIX I  
GEOCHEMICAL RESULTS































# NORANDA GEOCHEM LABORATORY

LOCATION SEBC PROJECT 1051-1 COLLECTOR D.Br. DATE RECEIVED Oct / 26 / 83 CODE 8311-001 SHEET 6  
 MATERIAL Soil DATE ANALYSED Nov / 2 / 83 ANALYST RF  
 REMARKS \_\_\_\_\_

T.T. NO.	SAMPLE NO.	Cu	Zn	Pb	Ag	Mo							
3	115N-101.50E	12	44	2	0.2	<2							
4	102E	26	140	2	0.2	<2							
5	102.50E	16	120	6	0.2	<2							
6	103E	12	160	6	0.2	<2							
7	103.50E	22	170	2	0.2	<2							
8	99.50E	12	82	2	0.2	<2							
9	104E	32	250	4	0.6	<2							
20	104.50E	16	110	4	0.2	<2							
1	115N-105E	8	94	2	0.2	<2							





APPENDIX 2

LIST OF PERSONNEL, STATEMENT OF COSTS

LIST OF PERSONNEL

<u>NAME</u>	<u>POSITION</u>	<u>DATES WORKED</u>
IVOR SAUNDERS	FIELD SUPERVISOR	OCT. 15-21
GRAHAM DAVIDSON	GEOLOGIST	OCT. 15-19, 21
RON SCHAFER	GEOLOGICAL ASSISTANT	OCT. 28,29,30
LEO LORANGER	CONTRACTOR	OCT. 11-14



NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COST

PROJECT - SHERPA 1, SHERPA 2  
TYPE OF REPORT - Geochem

DATE: NOVEMBER 1983

a) Wages:

No. of Days - 20 mandays  
Rate per Day - \$97.09  
Dates From - October 1 - October 31 1983  
Total Wages - 20 X \$97.09 \$1,941.74

b) Food and Accommodation:

No. of Days - 20  
Rate per Day - \$45.00  
Dates From - October 1 - October 31, 1983  
Total Cost - 20 X \$45.00 \$ 900.00

c) Transportation:

No. of Days - 12  
Rate per Day - \$30.00  
Dates From - October 1 - October 31, 1983  
Total cost 12 X \$30.00 \$ 360.00

d) Analysis \$ 972.00

e) Cost of Preparation of Report:

Author \$ 158.00  
Drafting \$ 79.00  
Typing \$ 79.00

e) Other:

Supervision \$ 300.00

Total Cost \$4,789.74

UNIT COSTS

Unit Costs for Geochem

No. of Days - 20

No. of Units - 243 Samples

Unit Costs - 19.71 / Sample

Total cost        243    X   \$19.71

\$4,789.74

NORANDA EXPLORATION COMPANY, LIMITED

DETAILS OF ANALYSES COSTS


243 Soils Samples - 5 Elements Cu, Pb, Zn, Ag, Au      \$ 972.00

APPENDIX 3  
STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, Douglas Bryan of the City of Kamloops, Province of British Columbia, do certify that:

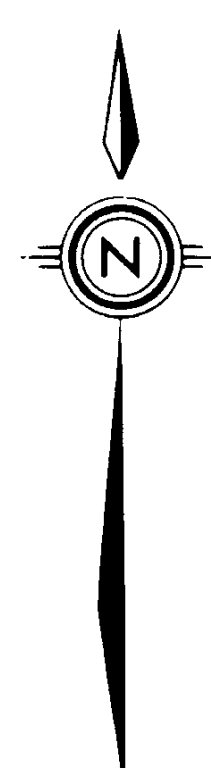
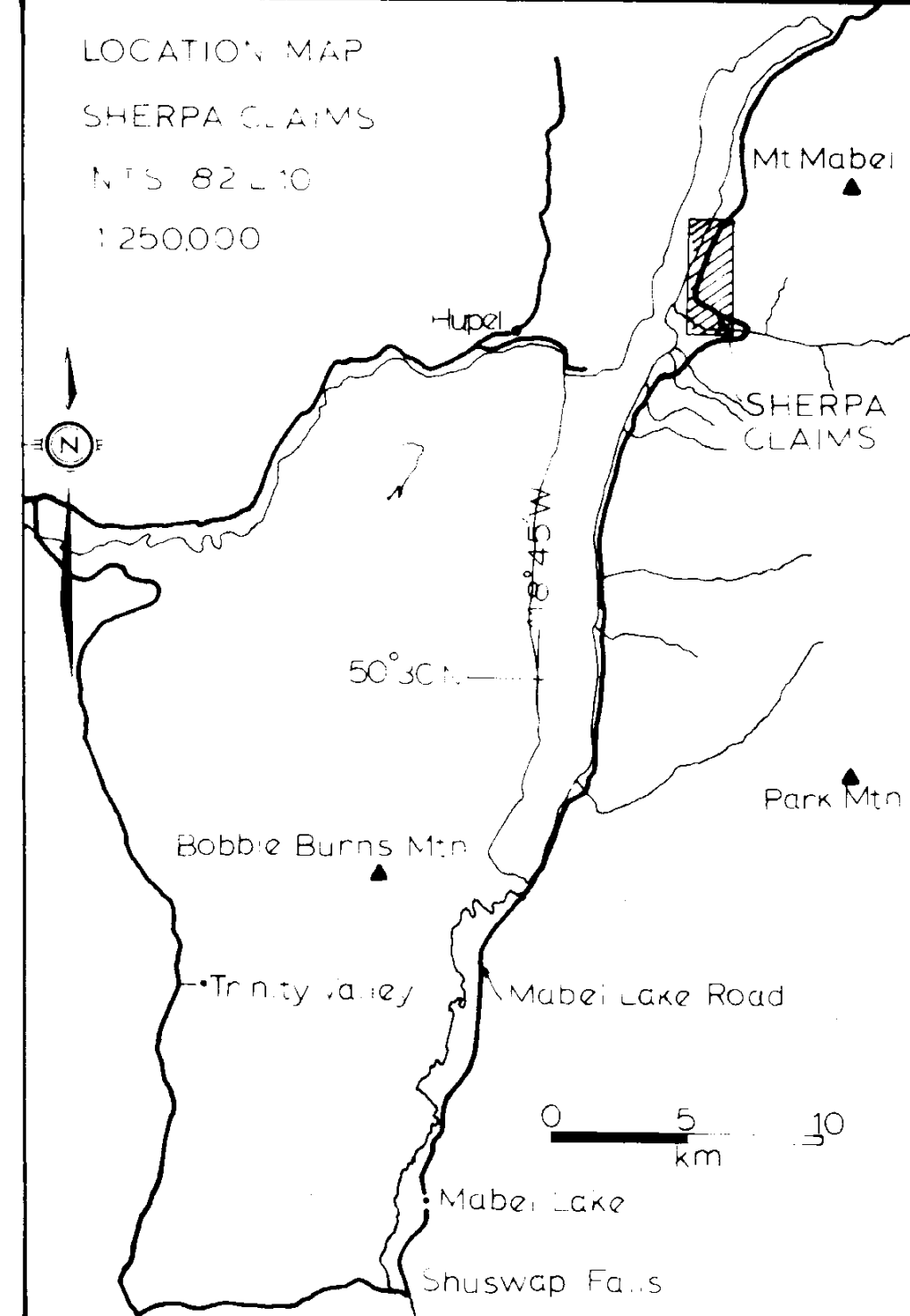
1. I am a graduate of the University of Alberta with a Masters of Science in Geology.
2. I am a Professional Geologist registered with the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
3. I have been a permanent employee of Noranda Exploration Company, Limited since March 1977.

A circular seal for the Association of Professional Engineers, Geologists and Geophysicists of Alberta. The seal features a central figure of a bison standing on a rock. The text "PROFESSIONAL GEOLOGIST ALBERTA" is written around the perimeter. The name "DOUGLAS BRYAN" and the number "1977" are stamped across the seal.

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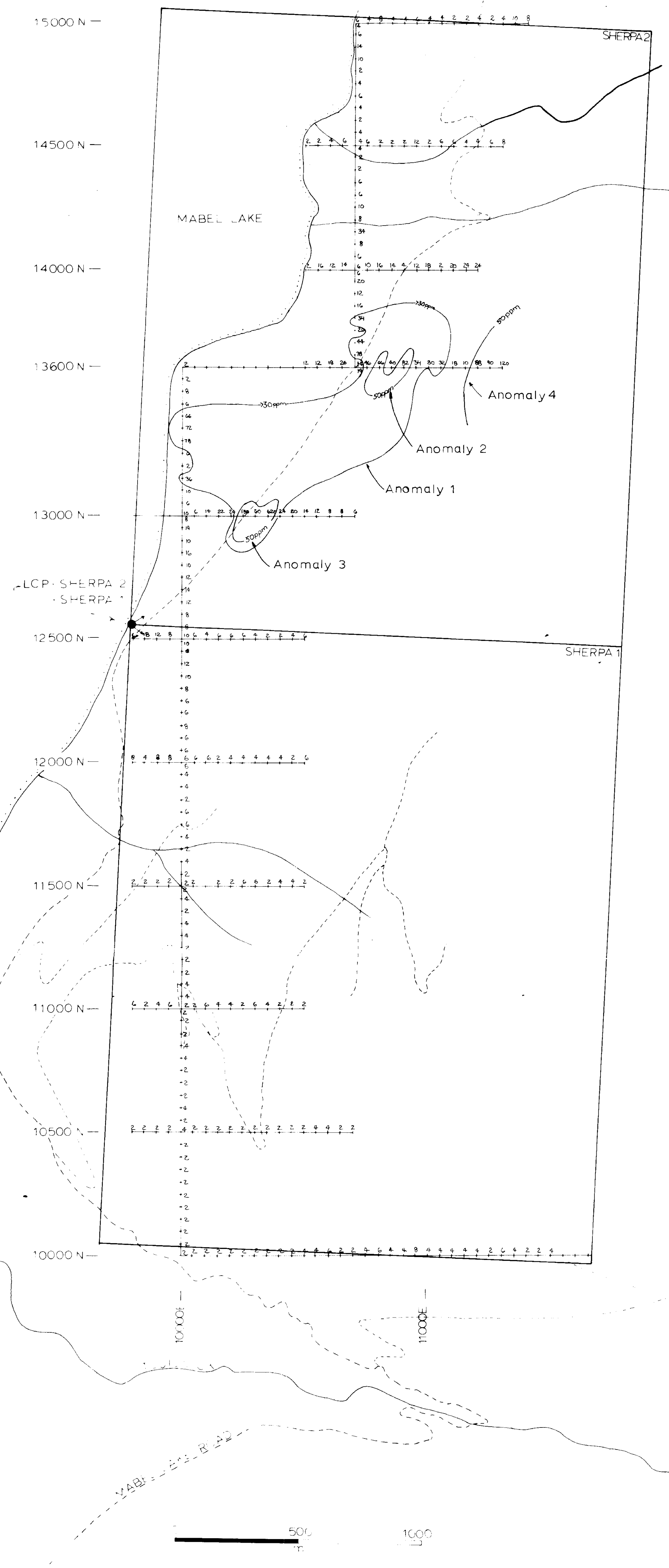
Douglas Bryan  
District Geologist  
Noranda Exploration Company, Limited  
(No Personal Liability)

LOCATION MAP  
 SHERPA CLAIMS  
 N.T.S. 82 L 10  
 1:250,000



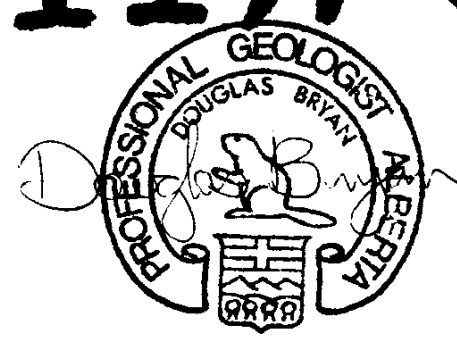
SYMBOLS

- ROAD
- LAKE SHORE
- STREAM
- GRID LINE
- SOIL SAMPLE RESULT ppm



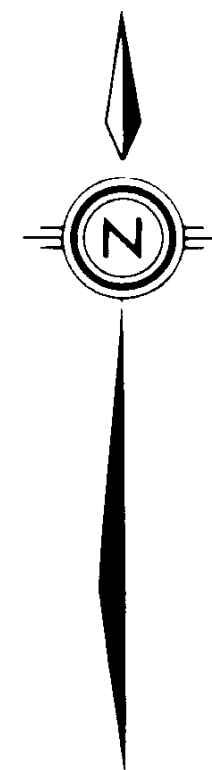
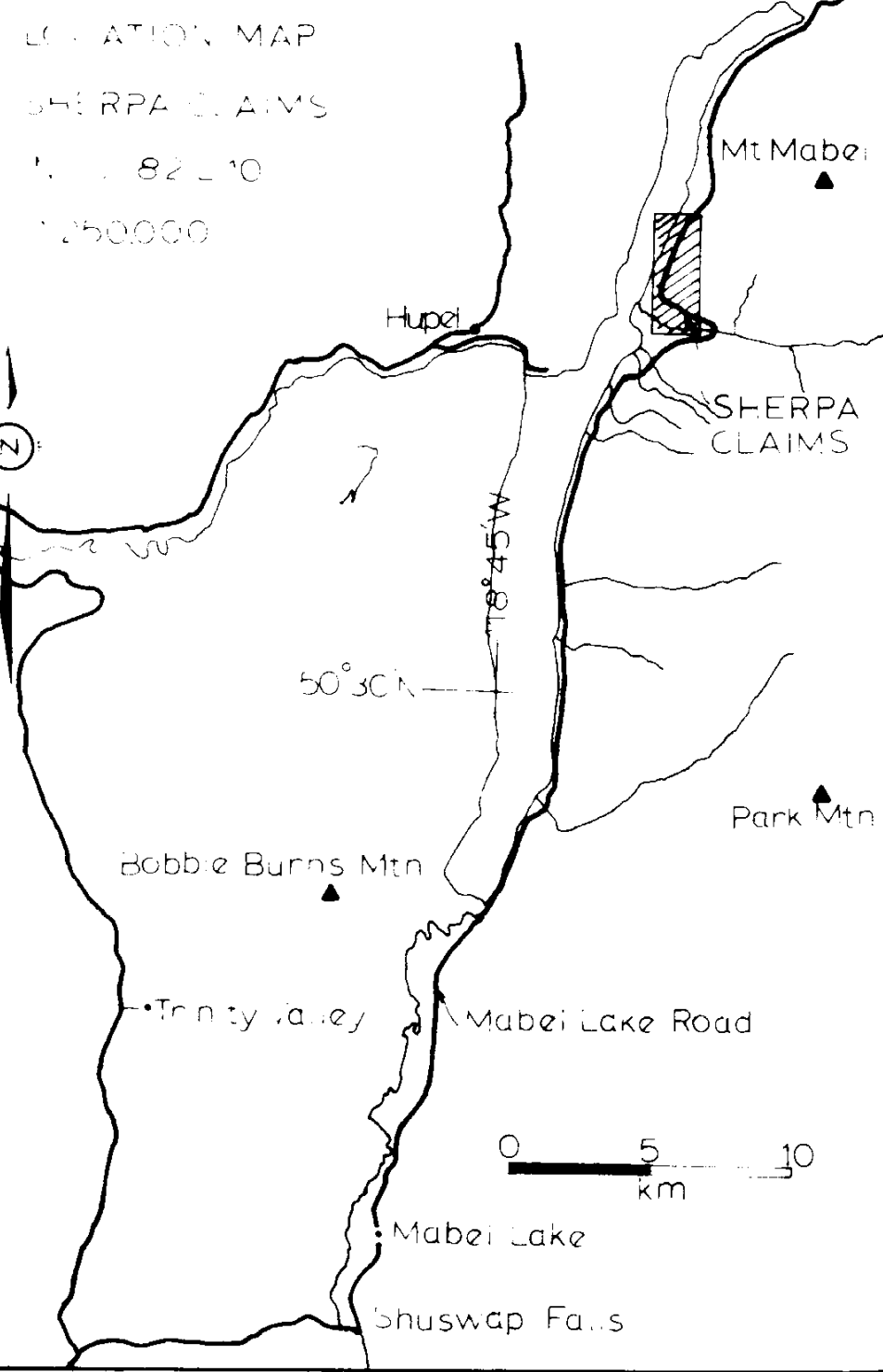
**GEOLOGICAL BRANCH  
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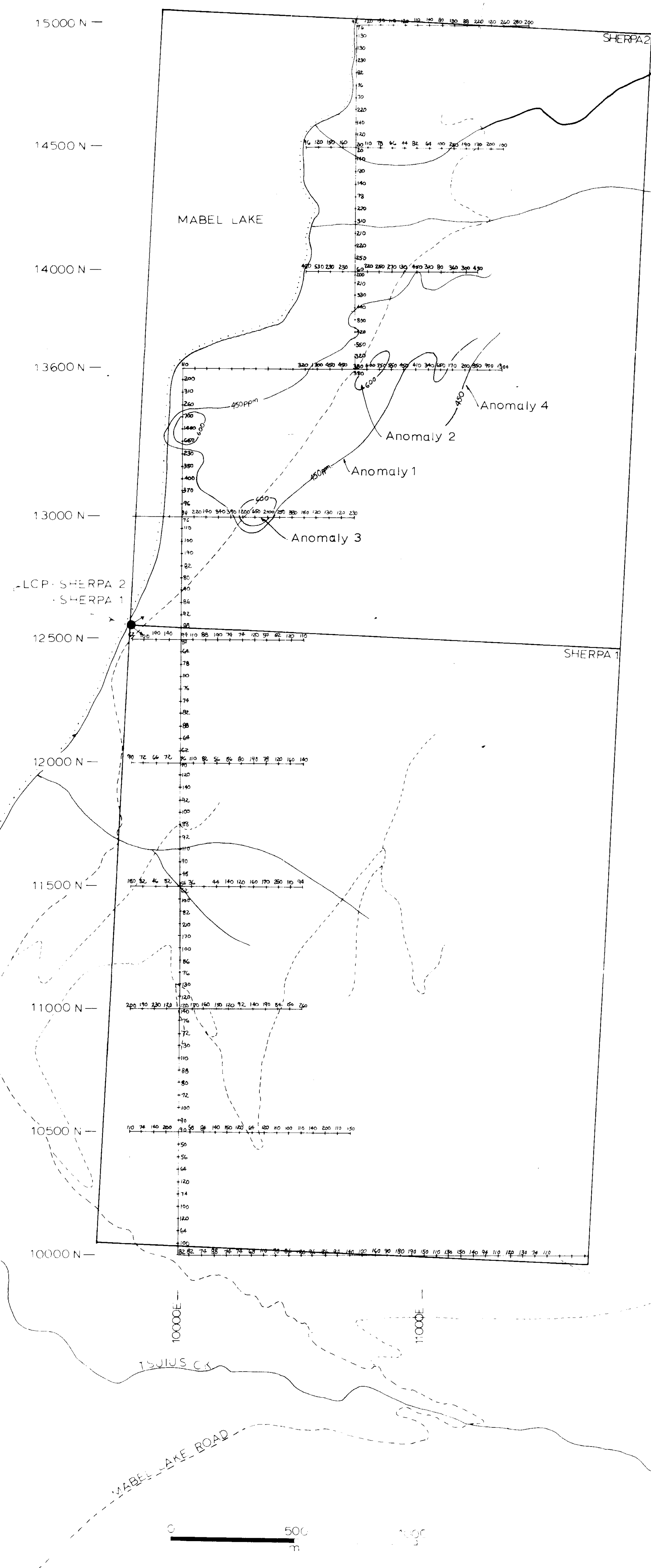
Map to accompany assessment report  
 Geochemical Report on the Sherpa 1 and  
 Sherpa 2 Mineral Claims, Lennon Mining  
 Division, by D. Bryan, Oct. 1983

REVISED	MABEL LAKE	
	GEOCHEMISTRY	
	Pb in Soils	
PROJ No 10	SURVEY BY G.D.S.P.S.L.L.	DATE NOV 83
N.T.S. 82 L 10	DRAWN BY DB	SCALE 1:10,000
DWG No 1	<b>NORANDA EXPLORATION</b>	
	OFFICE KAMLOOPS	



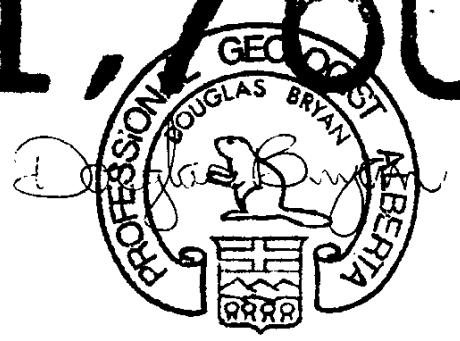
SYMBOLS

- ROAD
- LAKE SHORE
- STREAM
- GRID LINE
- SOIL SAMPLE RESULT (ppm)



**GEOLOGICAL BRANCH  
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Map to accompany assessment report  
Geochem. Report on the Sherpa and  
Gorpa Claims, Kamloops Mining  
Division, D. Bryan, Oct. 1983

REVISED	MABEL LAKE	
	GEOCHEMISTRY	
	Zn in Soils	
PROJ No. 11760	SURVEY BY G.D. R.S. 11	DATE NOV 83
NTS 1:25,000	DRAWN BY DB	SCALE 1:10,000
DWG No. 2	<b>NORANDA EXPLORATION</b>	
	OFFICE KAMLOOPS	