

GEOLOGICAL, AND  
GEOCHEMICAL REPORT  
ON THE  
SAL 1 to 11 MINERAL CLAIMS  
LOCATED IN THE REVELSTOKE MINING DIVISION  
AT CO-ORDINATES  
51° 11' N 118° 9' W

BY

JOHN E. FISHER  
(KAMLOOPS)

NORANDA EXPLORATION COMPANY, LTD.  
(no personal liability)

NOVEMBER 1981

N.T.S. 82M/1E

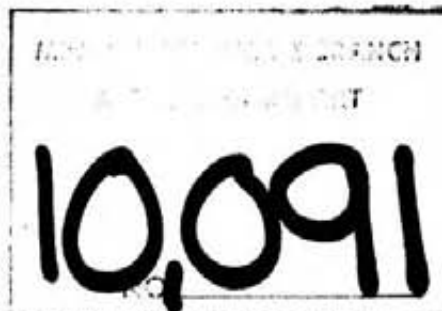


TABLE OF CONTENTS

<u>TEXT</u>	<u>PAGE</u>
TITLE PAGE	i
TABLE OF CONTENTS	ii
APPENDICES	ii
LIST OF FIGURES AND DRAWINGS	ii
INTRODUCTION	1
LOCATION AND ACCESS	1
CLAIMS AND OWNERSHIP	1 & 2
TOPOGRAPHY, CLIMATE AND VEGETATION	2
GEOLOGY	2 & 3
GEOCHEMICAL SURVEY	3 - 4
INTRODUCTION	3
METHOD	3 & 4
PRESENTATION OF RESULTS	4
DISCUSSION OF RESULTS	4 & 5
CONCLUSIONS AND RECOMMENDATIONS	5

APPENDICES

STATEMENT OF QUALIFICATION	I
STATEMENT OF COST	II

LIST OF FIGURES AND DRAWINGS

FIGURE 1	GENERAL LOCATION MAP
FIGURE 2	CLAIM MAP
DRAWING 1	GEOLOGY MAP
DRAWING 2	GEOCHEMICAL SURVEY - Cu, Mo
DRAWING 3	GEOCHEMICAL SURVEY - Pb, Zn
DRAWING 4	GEOCHEMICAL SURVEY - Ag
DRAWING 5	GEOCHEMICAL SURVEY - W

## INTRODUCTION

In mid-December 1980 Noranda Exploration Company, Limited (no personal liability) staked the 11 claim (200 unit) Laforme Creek Property approximately 20 Km north of Revelstoke, B.C.

The property was staked adjacent to the Thanksgiving Claim Group, a tungsten prospect to the north, near the junction of Hathaway Creek and a new portion of the Mica Creek (Dam) Road. The tungsten mineralization there occurs in a garnet-diopside-quartz-scheelite-carbonate skarn and a scheelite-bearing quartz-biotite schist.

No previous work has been done on the Laforme Creek Property.

During late June and into July 1981 Noranda crew members carried out extensive contour soil/silt traverses, as well as a geological survey in order to assess the property.

## LOCATION AND ACCESS

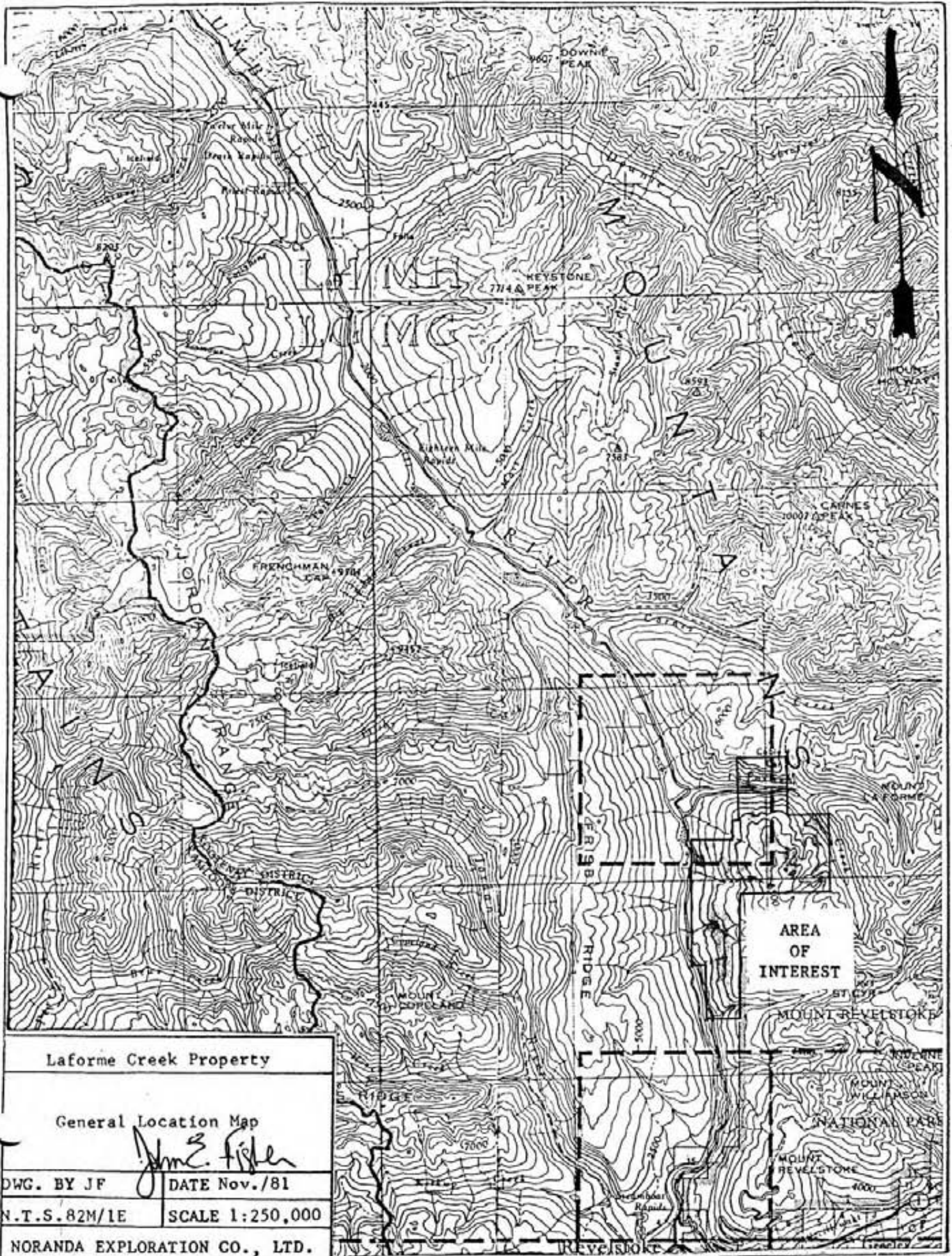
The center of the property lies to the east of the Columbia River, approximately 20 Km (air) at  $010^{\circ}$  (true) from Revelstoke, B.C. (refer to figure 1). Access to the lower portion of the property is afforded by the recently relocated Mica Creek (Dam) Road from Revelstoke, while two good logging roads lead to the upper elevations.

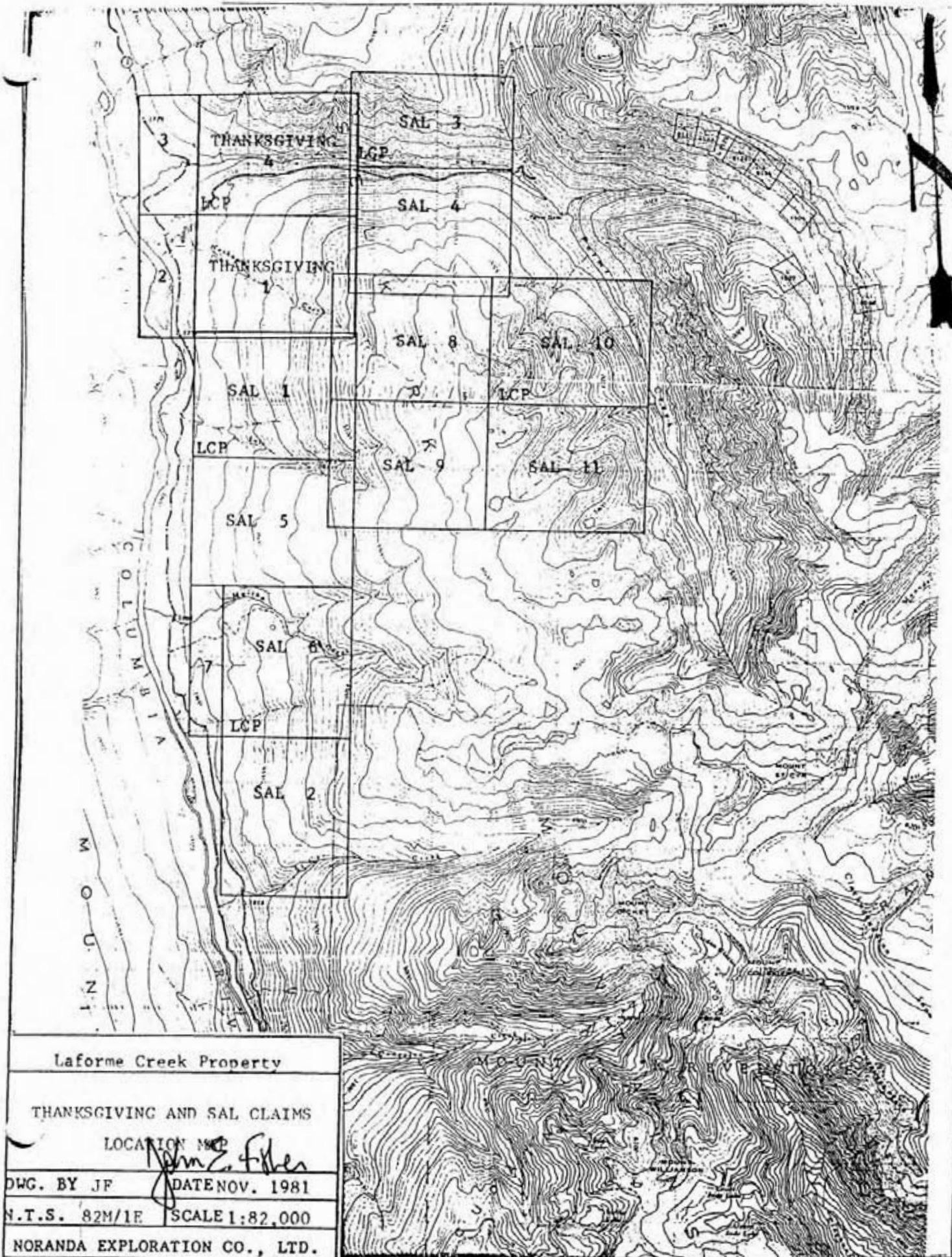
## CLAIMS AND OWNERSHIP

The Laforme Creek Property comprises the SAL 1-11 claims that total 200 units in all (refer to figure 2). The property was staked by Amex Exploration Services Ltd., of Kamloops, B.C. for Noranda Exploration Company, Limited (no personal liability) in mid-December 1980. The property lies within the Revelstoke Mining Division.

<u>CLAIM NAME</u>	<u>RECORD NO.</u>	<u>RECORD DATE</u>	<u>UNITS</u>
SAL 1	<del>09934</del> 1151	Jan 13 1981	20
SAL 2	<del>09935</del> 1152	"	20
SAL 3	<del>09936</del> 1153	"	15
SAL 4	<del>09937</del> 1154	"	20

FIGURE: 1





Claims and Ownership Cont'd

<u>CLAIM NAME</u>	<u>RECORD NO.</u>	<u>RECORD DATE</u>	<u>UNITS</u>
SAL 5	<del>09938</del> 1155	Jan 13 1982	20
SAL 6	<del>09939</del> 1156	"	20
SAL 7	<del>09940</del> 1157	"	5
SAL 8	<del>09941</del> 1160	Jan 26 1982	20
SAL 9	<del>09942</del> 1161	"	20
SAL 10	<del>09943</del> 1162	"	20
SAL 11	<del>09944</del> 1163	"	20

TOPOGRAPHY, CLIMATE & VEGETATION

The claims are located in the Selkirk Mountain Range and occupy an area that varies from gently to moderately sloping hillsides with occasional steep cliff faces. The area is drained by numerous small creeks, most of which make their way to the Columbia River. Elevations range from 488 metres to 2074 metres A.S.L.

Vegetation on the lower levels consists of mature stands of spruce, hemlock, balsam and cedar but sub-alpine and alpine conditions with scrub vegetation and open highland meadows prevail on the upper reaches.

Climate is that of the Interior Rain Belt with temperatures ranging between  $-15^{\circ}$  C and  $+30^{\circ}$  C. Annual precipitation averages 1.15 metres, more than half of which falls as up to 6 metres of snow.

GEOLOGY

The property is underlain by a variety of metasedimentary, meta-volcanic (?) and intrusive rocks, and is recognized on a regional scale as being on the extreme eastern flank of the Shuswap Metamorphic Complex. (refer to G.S.C. Paper 64-32 by J.O. Wheeler, 1965).

Outcrop on the property is considerable and occurs on cliff faces, in logging road cuts and on isolated knobs and ridges at the higher elevations.

The youngest rock in the area, of possible Jurassic-Cretaceous age, is a coarse-grained quartz-feldspar porphyry. Phenocrysts of pinkish-orange and white feldspar and quartz occur up to 3cm in length, in a matrix of plagioclase, quartz and biotite.

## Geology Cont'd

A few scattered plugs of medium-grained granite also outcrop on the property. This rock type is light grey in colour and is composed of quartz, feldspar and approximately 20% hornblende and biotite.

A migmatitic medium-grained hornblende granodiorite is also in evidence in isolated areas.

The remainder of the property is underlain by a variety of fine-grained metamorphic rocks including:

1. granitic gneiss
2. quartz-chlorite gneiss
3. biotite gneiss
4. micaceous quartzite

Other than in a few instances, the foliation within these rocks generally trends northwesterly.

No evidence of economic mineralization was encountered on the property.

## GEOCHEMICAL SURVEY

### Introduction

Extensive contour soil/silt traverses were carried out over most of the property. Samples were collected at 200m intervals and lines run every 500 vertical feet. Suitable creeks were sampled whenever encountered on these traverses.

In all a total of 336 samples were taken over the property.

All samples were analysed for ppm zinc, lead, silver, copper, molybdenum and tungsten in the Noranda Exploration Company, Limited laboratory at 1050 Davie Street, Vancouver, B.C. Analyst was R. Fenton.

### Method

All soil samples were obtained by digging holes with a mattock to a depth of between 15cm and 40cm, where the visible "B" horizon, whenever possible, was exposed. Silt samples were taken from the active part of the stream wherever possible. The samples were placed in "Hi" Wet Strength Kraft envelopes, the sample number was marked on the envelope in indelible ink and the station marked using coloured flagging. The samples were dried, then shipped, and screened and sifted to obtain the -80 mesh fraction.

## Geochemical Survey--Method Cont'd

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

0.200 grams of the -80 mesh material is digested in 2ml of  $\text{HClO}_4$  and 0.5ml of  $\text{HNO}_3$  for approximately 4 hours. Following digestion, each sample is diluted to 5ml with demineralized  $\text{H}_2\text{O}$ . A Varian Techtron Model AA-5 Atomic Absorption Spectrophotometer was used to determine the parts per million (ppm) of each element in each sample.

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

The determination procedure for total tungsten is as follows:

1.0g sample of the -80 mesh material is sintered with carbonate flux and is leached with water. The leachate is treated with  $\text{KSCN}$ . This forms a yellow tungsten thio-cyanate which is extracted into tri-n-butyl phosphate. This permits colourimetric comparison with a standard series to ca 4 ppm (after F.N. Ward, 1963).

### PRESENTATION OF RESULTS

Results of the soil/silt surveys are presented in drawings 2,3,4 and 5 of this report. These plan maps, at a scale of 1:20,000, indicate sample number and type, and geochemical analysis at each sample site.

### DISCUSSION OF RESULTS

In general results from the geochemical survey were unencouraging especially with respect to copper, molybdenum and silver. The survey has outlined, however, a number of areas of tungsten and lead-zinc responses that warrant some further consideration.

These areas are as follows:

#### Tungsten (refer to drawing 5)

1. Northwest corner of the Sal 8 claim upslope from an anomaly of 70 ppm.
2. Central portion of the Sal 6 claim between the 3000' and 3500' contour lines.
3. Extreme northeast corner of the Sal 2 claim in the vicinity of the 4500' contour level.



Discussion of Results---Tungsten Cont'd

4. Central portion of the Sal 2 claim between the 3000' and 3500' contour levels where a number of weakly anomalous values occur.
5. Central portion of the Sal 7 claim.
6. East half of the Sal 10 claim upslope from a few weak silt sample anomalies.

Others (refer to drawing 3)

7.  $\frac{1}{2}$  Km north of the Sal 2,6 and 7 legal corner post where anomalous zinc and lead responses occur.
8. Zinc anomaly that stretches for  $1\frac{1}{2}$  Km along the 2000' contour south of Sale Creek.

CONCLUSIONS AND RECOMMENDATIONS

There still remain a number of areas of potential interest on the Laforme Creek Property not fully assessed this past field season, due largely to restraints on time.

It is recommended that detailed soil and silt sampling and prospecting be carried out in the vicinity of the aforementioned geochemical anomalies. Ground magnetometer and VLF-EM surveys might also be completed in a few of the areas. Any areas deemed favourable as a result of this work should be trenched in order to access them further.

It is also suggested that contour traverses be carried out over portions of the property not covered this year, specifically the Sal 8 and Sal 9 claims, and that geological mapping be continued.

As well, night-lamping could be carried out, concentrating initially on the Sal 1,4 and 8 claims.

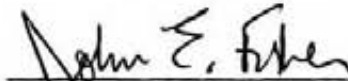
APPENDIX I

Statement of Qualifications

STATEMENT OF QUALIFICATIONS

I, John Edward Fisher of the Town of Beaverton, Province of Ontario, do certify that:

1. I have been employed as a geologist by Noranda Exploration Company, Limited since June, 1981.
2. I am a graduate of Queen's University with a Bachelor of Science in Geology. (1981)



John Edward Fisher, B. Sc.  
Geologist,  
Noranda Exploration Company, Limited  
(no personal liability)

APPENDIX II  
Statement of Cost

NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COST

PROJECT LA FORME

DATE NOVEMBER 27, 1981

TYPE OF REPORT GEOLOGY & GEOCHEM

a) Wages:

No. of Days	66		
Rate per Day	\$ 58.1107		
Dates From:	January 1, 1981 - October 31, 1981		
Total Wages	66	x \$ 58.1107	3,835.31

b) Food and Accomodation:

No of days	66		
Rate per day	\$ 63.8715		
Dates From:	January 1, 1981 - October 31, 1981		
Total Cost	66	x \$ 63.8715	4,215.52

c) Transportation:

No of days	66		
Rate per day	\$ 98.2436		
Dates From:	January 1, 1981 - October 31, 1981		
Total Cost	66	x \$98.2436	6,484.08

d) Instrument Rental:

Type of Instrument			
No of days			
Rate per day	\$		
Dates From:			
Total Cost		x \$	

Type of Instrument			
No of days			
Rate per day	\$		
Dates From:			
Total Cost		x \$	

f) Analysis (See attached schedule)	1,713.60
g) Cost of preparation of Report	
Author	116.22
Drafting	191.41
Typing	<u>116.22</u>
h) Other:	

Total Cost \$16,672.36

e) Unit costs for	Geology	
No of days	66	
No of units		
Unit costs	92.407 / day	
Total Cost	66 × 92.407	6,098.89

Unit Costs for Geochem		
No. of Units	336 Samples	
Unit Costs	31.4687/Sample	
Total Cost	336 × \$31.4687	<u>10,573.47</u>

\$16,672.36

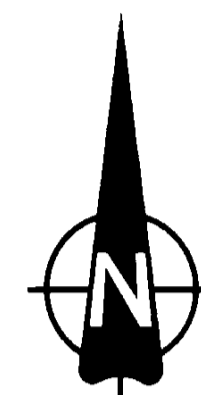
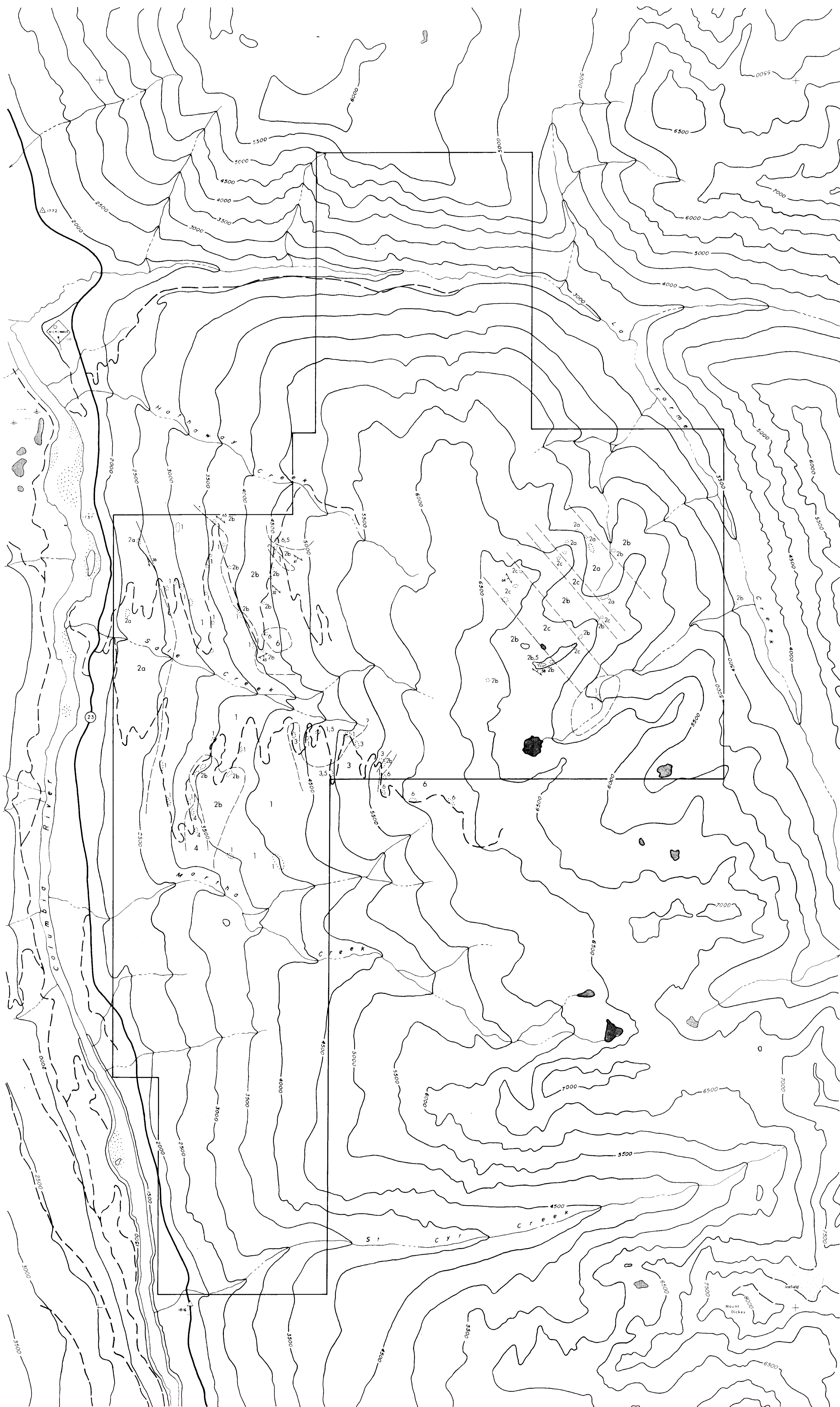
NORANDA EXPLORATION COMPANY, LIMITED  
(WESTERN DIVISION)

DETAILS OF ANALYSIS COSTS

PROJECT: LA FORME CREEK

<u>ELEMENT</u>	<u>NUMBER OF DETERMINATIONS</u>	<u>COST PER DETERMINATIONS</u>	<u>TOTAL</u>
<u>Cu</u>	<u>336</u>	<u>1.50</u>	<u>504.00</u>
<u>Pb</u>	<u>336</u>	<u>.60</u>	<u>201.60</u>
<u>Zn</u>	<u>336</u>	<u>.60</u>	<u>201.60</u>
<u>Mo</u>	<u>336</u>	<u>.60</u>	<u>201.60</u>
<u>Fe</u>	<u>336</u>	<u>.60</u>	<u>201.60</u>
<u>Ag</u>	<u>336</u>	<u>.60</u>	<u>201.60</u>

\$ 1,713.60



**LEGEND**

**Rock Types**

- Jurassic - Cretaceous?
- 1** Quartz - Feldspar Porphyry: coarse grained Proterozoic
- 2** Metasedimentary Rocks
  - 2a** Chlorite - Quartz Gneiss
  - 2b** (Quartz) Biotite Gneiss - Schist
  - 2c** Micaceous Quartzite
- 3** Migmatitic Biotite - Hornblende Granodiorite: frequently foliated
- 4** Granitic Gneiss
- 5** Pegmatite Dykes
- 6** Granite

**Symbols**

- Outcrop
- Foliation
- Geological Contact: defined, assumed
- Road

0,091

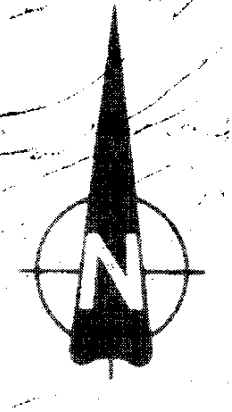
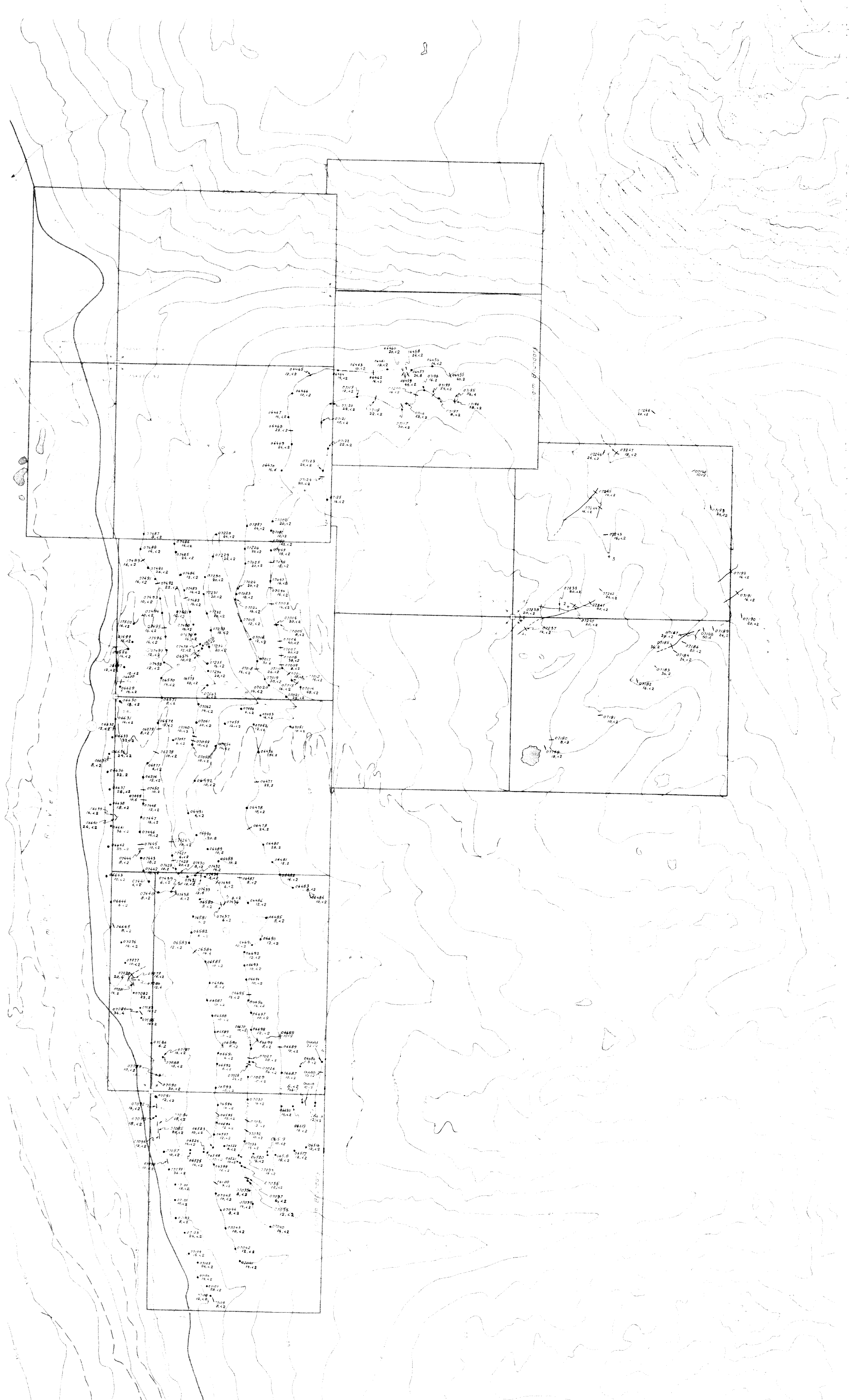
**SCALE**

1:20,000  
Metres 200 0 200 400 600 Metres

To Accompany:  
Geological & Geochemical Report on the  
SAL 1-11 Mineral Claims, Revelstoke A.D., B.C.  
by J.E. Fisher, November/1981.

REVISED Nov/81	LAFORME CREEK PROPERTY
	<b>GEOLOGY</b>
PROJ. No. 1064 N.F.S. - 82M/1E DWG. No. 1	SURVEY BY: N.S. & J.F. DATE: 5 Sept /81 DRAWN BY: J.E. Fisher, S. Day SCALE: 1:20,000 <b>NORANDA EXPLORATION</b> OFFICE: Kamloops





10,091

**LEGEND**

- 07105  
24.2 Soil, with sample number, and geochemical analysis
- 07178  
20.4 Silt, with sample number, and geochemical analysis

**SYMBOLS**

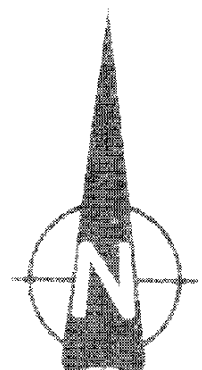
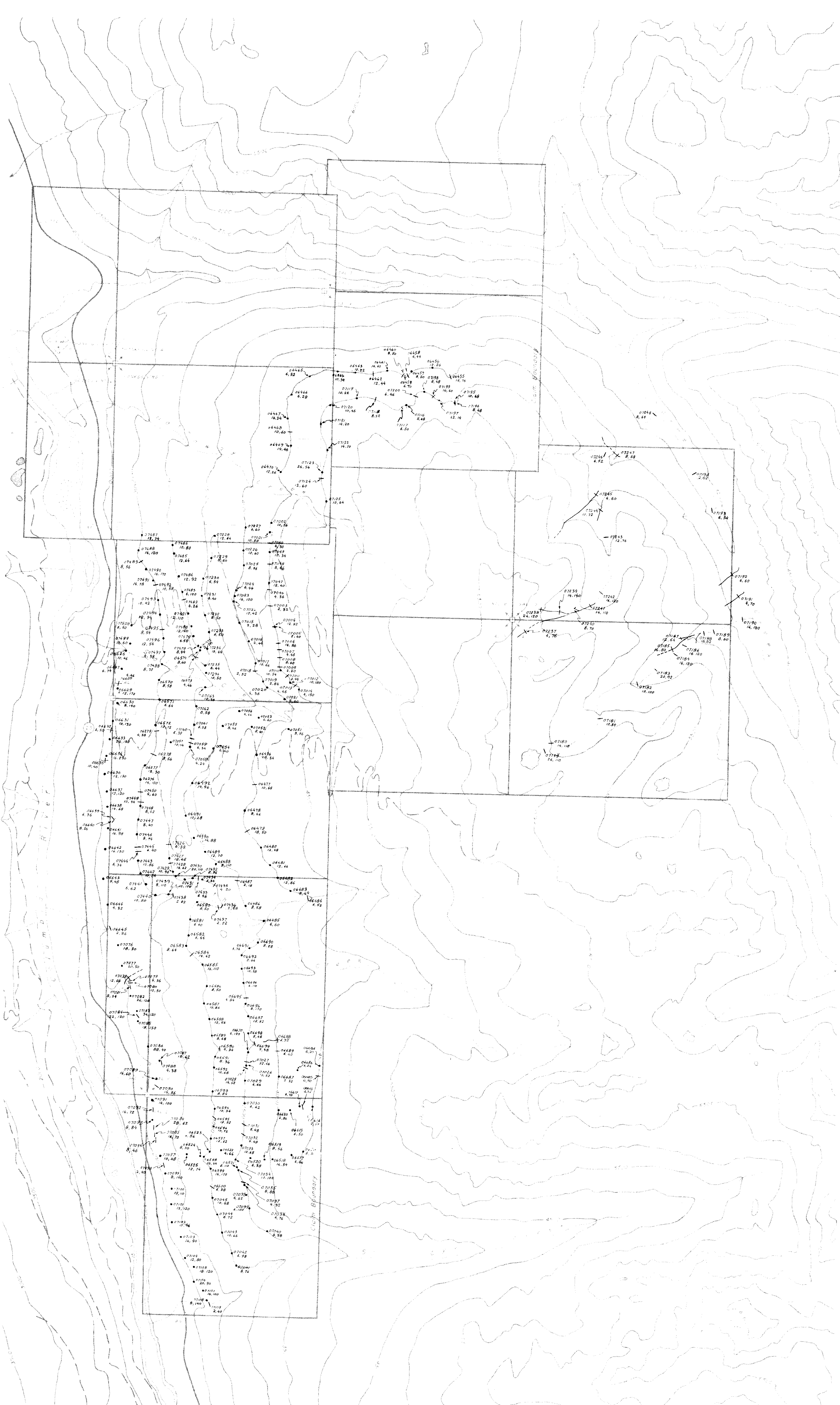
- 
- 
- 
- +

To Accompany:  
 Geological & Geochemical Report on the  
 SAL 1-11 Mineral Claims, Revelstoke M.D., B.C.  
 by J.E. Fisher, November/1981.

*John E. Fisher*

Meters 0 200 400 600 800 1000

Nov 781	LA FORME CREEK PROPERTY
	<b>GEOCHEMICAL SOIL SURVEY</b>
	Cu, Mo
2	NORANDA EXPLORATION



**LEGEND**

- 76.24 Soil, with sample number, and geochemical analysis
- 76.24 Silt, with sample number, and geochemical analysis

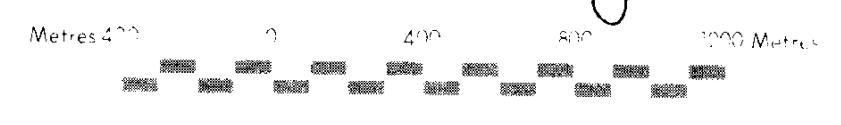
**SYMBOLS**

- Contour line
- Section line
- Boundary
- Sample location

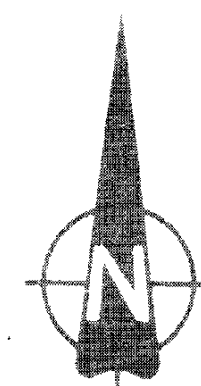
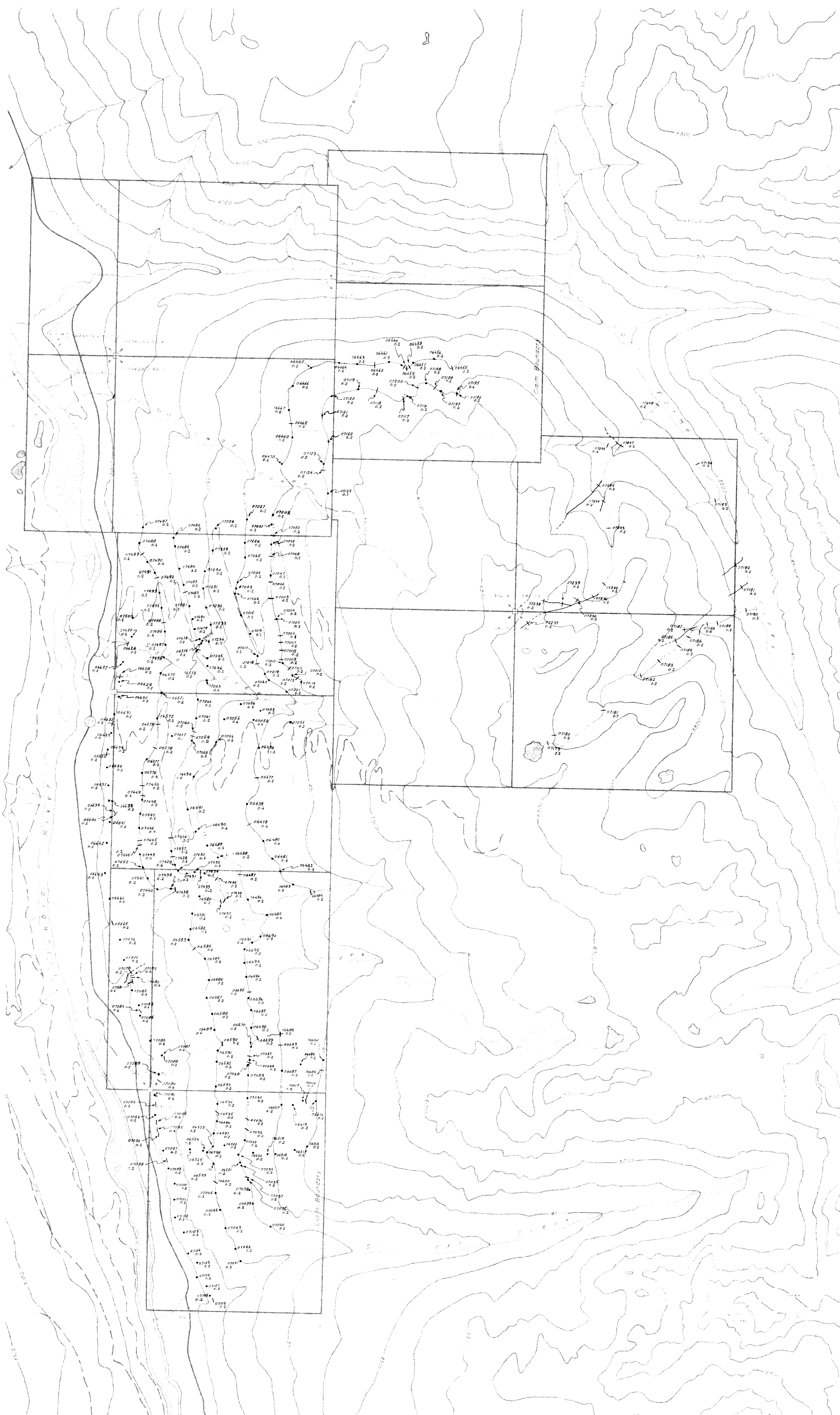
10,091

To Accompany:  
 Geological & Geochemical Report on the  
 SAL 1-11 Mineral Claims, Revelstoke M.D., B.C.  
 by J.E. Fisher, November/1981

*John E. Fisher*



Project No. 781	LA FORME CREEK PROPERTY	
	GEOCHEMICAL SOIL SURVEY	
	Pb, Zn	
Drawn by J.E. Fisher	DATE: AUG 1981	
Checked by J.E. Fisher	DATE: 11/20/81	
Scale: 1:20,000	NORANDA EXPLORATION	
3	OFFICE: VANCOUVER, B.C.	



10091

**LEGEND**

- 07100 Soil, with sample number, and geochemical analysis
- 07449 Silt, with sample number, and geochemical analysis

**SYMBOLS**

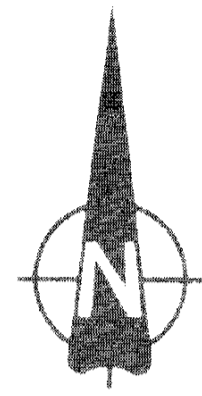
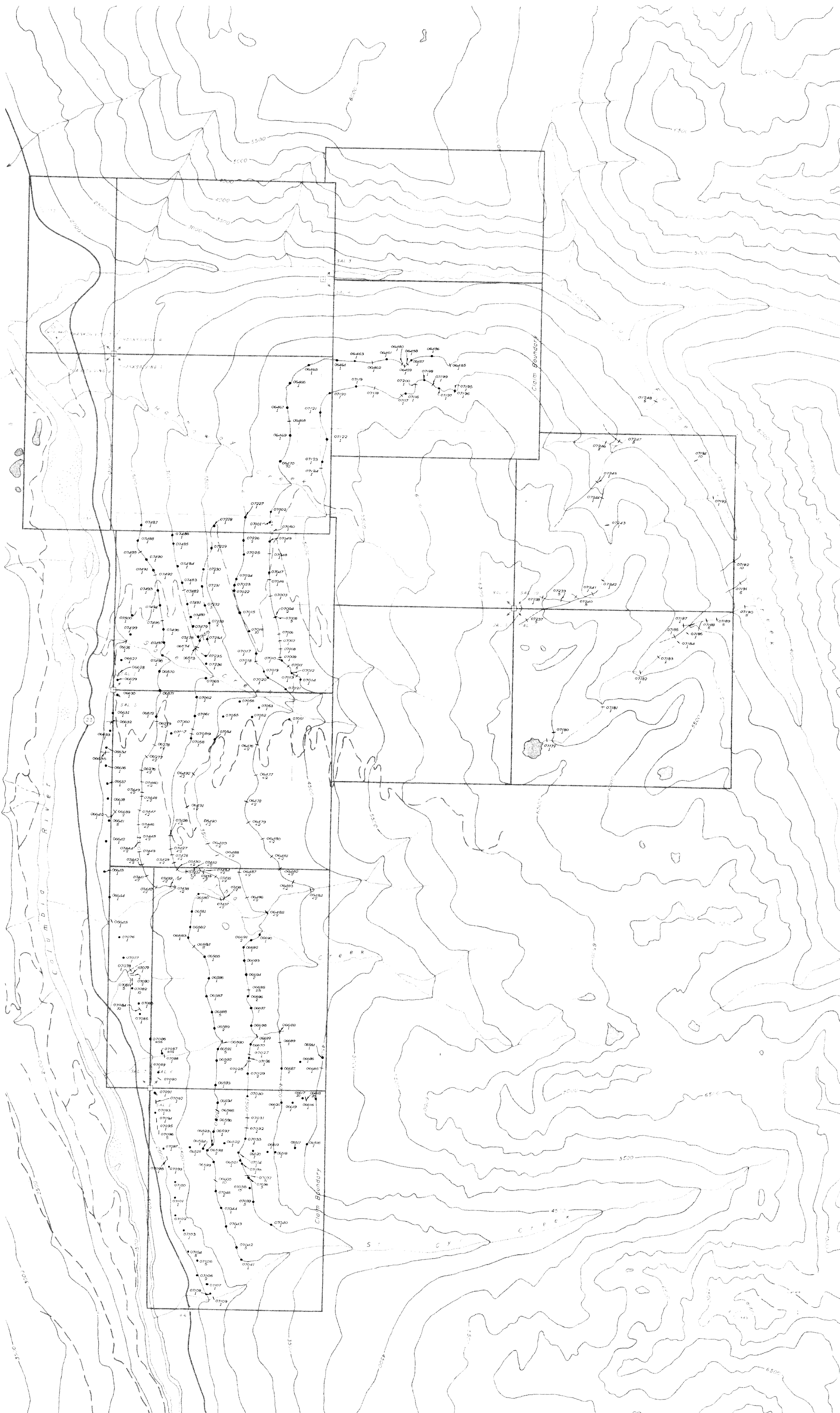
- 021100 No surface, weather
- 021101 No base, uniform, weather
- 021102 Stream
- 021103 1/4" x 1/4" grid, with 10m lines
- 021104 Name and Number of Township, R.P.

To Accompany:  
 Geological & Geochemical Report on the  
 SAL 1-11 Mineral Claims, Revelstoke M.D., B.C.  
 by J.E. Fisher, November/1981.

*John E. Fisher*

Metres 0 50 100 150 200

REVISED Nov/81	LA FORME CREEK PROPERTY	
	GEOCHEMICAL SOIL SURVEY	
	Ag	
PROJ. NO. 104	DRAWN BY: J.E. Fisher	DATE: AUG 1981
PLT. BY: J.E. Fisher	CHECKED BY: S. NEP. [Signature]	SCALE: 1:20,000
DWG. NO. 4	NORANDA EXPLORATION	
	OFFICE: VANCOUVER, B.C.	



**LEGEND**

- 07200 Soil, with sample number, and geochemical analysis
- 06807 Silt, with sample number, and geochemical analysis

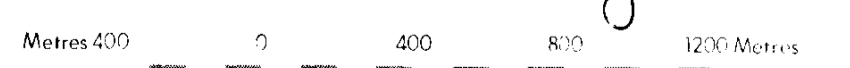
**SYMBOLS**

- Rugged rock surface, by weather
- - - Rugged, loose surface, by weather
- ~ Stream
- ⊕ Loop Corner Post, with chain lines
- ⊕ Name and number of claim, M.D.C.P.

19091

To Accompany:  
 Geological & Geochemical Report on the  
 SAL 1-11 Mineral Claims, Revelstoke M.D., B.C.  
 by J.E. Fisher, November 1981.

*John E. Fisher*



REVISED Nov /81	<b>LA FORME CREEK PROPERTY</b>	
	<b>GEOCHEMICAL SOIL SURVEY</b>	
	<b>W</b>	
PROJ. No. 1074 SHEET 1 OF 1 DWG. No. 5	SURVEY BY J.E. Fisher DRAWN BY S. NEP. Burns	DATE AUG 1981 SCALE 20,000
<b>NORANDA EXPLORATION</b>		
OFFICE VANCOUVER, B.C.		