

223

NORANDA EXPLORATION COMPANY LIMITED

GEOLOGICAL SURVEY

of the

FARR LAKE PROPERTY

Eleven Miles North Northwest

of

Lower Nicola, B.C.

50° 120° East Southeast

M. M. Menzies, P. Eng.

August-September, 1958

TABLE OF CONTENTS

COST STATEMENT

GEOLOGICAL REPORT - - - - - 4 pages

#/ 1 GEOLOGICAL MAP - - - - Scale 1" = 400'

NORANDA EXPLORATION COMPANY LIMITED

COST OF GEOLOGICAL SURVEY

of the

FARR LAKE PROPERTY

August-September, 1958

PROFESSIONAL:

SUPERVISORY & MAPPING - 25 days @ \$35.00/day - \$ 875.00

TECHNICAL:

DRAUGHTING - 15 days @ \$15.00/day - \$ 225.00

LABOR:

SURVEY GRID - 60 man days @ \$15.00/day - \$ 900.00

TOTAL \$ 2,000.00

COST DISTRIBUTION:

<u>GROUP</u>	<u>NO. of CLAIMS</u>	<u>DISTRIBUTION/CLAIM</u>	<u>DISTRIBUTION/GROUP</u>
IRENE	1 - 8	\$100.00	\$ 800.00
LULU	1 - 8	\$100.00	\$ 800.00
STOFF	<u>1 - 4</u>	\$100.00	\$ <u>400.00</u>
Total	20 Claims	TOTAL	\$ 2,000.00

*W. H. Menzies*

NORANDA EXPLORATION COMPANY LIMITED

GEOLOGICAL SURVEY

of the

FARR LAKE PROPERTY

INTRODUCTION:

Noranda Exploration Company Limited first became interested in the Farr Lake property of Midnight Consolidated Mines, Ltd., in October, 1957. Following a preliminary examination 38 claims were optioned from Midnight Consolidated Mines, Ltd., and 16 additional claims were staked by Noranda Exploration Company Limited. A dip needle survey of half the property was made during November and December, 1957. A geological survey covering 20 claims was made in the late summer of 1958.

DESCRIPTION:

The Farr Lake property is immediately west of Farr Lake and eleven miles northwesterly from Lower Nicola, B.C. Elevations on the property vary from 4300 feet to 4800 feet. The southern claims are in an area of northerly trending rock ridges separated by low, flat-bottomed depressions. The northern claims are in an area of lakes, swamps, and gravel benches. The property is drained by small creeks which flow northward into the lakes and swamps. Thick stands of lodgepole pine and a few scattered fir trees blanket the Farr Lake property.

Rough but serviceable roads lead to the Farr Lake property from the Aberdeen road in the Guichon Creek valley and from Dot on the Merritt-Spences Bridge highway in the Nicola River valley. The property is approx-

imately 10 miles by road from the Aberdeen road and 15 miles from Det. In 1956 the Midnight Consolidated Mines, Ltd., built the road from Det and bulldozed trenches on the Lulu No. 1 claim and others. In 1958 Noranda Exploration Company Limited built the road from the Aberdeen and made extensive repairs to the Midnight section.

Farr Lake is 12 miles south of Highland Valley and 6 miles north of the Craigmont Mine. Small amounts of high grade copper ore have been mined at the O.K. mine 13 miles to the northwest and at the Aberdeen mine 5 miles to the east.

#### GENERAL GEOLOGY:

The Farr Lake property is in the central part of the southern end of the Guichon Creek batholith. The batholith extends north from the Craigmont mine and is bounded on the east by the Guichon Creek Valley, on the southwest by the Nicola River Valley, and on the north and west by the Thompson River. It is 40 miles in length and has a maximum width of 17 miles.

The predominate rock types are granodiorite and quartz diorite. Copper deposits of Highland Valley are associated with various phases of the Guichon Creek batholith. At the O.K. mine copper minerals occur in fault gouge, quartz and altered rocks of the Guichon Creek batholith. At the Aberdeen mine the copper ore is associated with an inclusion of greenstone in the batholith.

#### BIBLIOGRAPHY:

Geology and Mineral Deposits of Nicola Map-Area, B.C.;  
Geological Survey of Canada, Memoir 249;  
Cockfield, W.E. (1948).

Ashcroft Map-Area, B.C.;  
Geological Survey of Canada, Memoir 262;  
Duffell, S. and McTaggart, K.C. (1951)

The Geology and Mineral Deposits of Highland Valley, B.C.;  
C.I.M. Transactions, Vol LX, 1957, pp. 273-289;  
White, W.H., Thompson, R.M. and McTaggart, K.D.

REASONS FOR INVESTIGATION:

1. Proximity to Craigsont and Highland Valley.
2. Rocks similar to those found in Highland Valley.
3. An altered zone with sparse copper mineralization exposed by the 1956 trenching programme of Midnight Consolidated Mines, Ltd.

DETAILS OF METHODS:

Pace and compass traverses were run mainly along claim location lines with secondary traverses leading to areas of outcrop. Two picket lines were run from the Tyner Lake property grid to establish the correct relationship between the two properties.

Noranda Exploration Company Limited had the southern end of the Guichen Creek batholith photographed during the spring of 1958 and these aerial photos were used with good results to locate and map outcrop areas on the Farr Lake property. The photos were exceptionally clear and showed much more detail than older air photos of the same area. Geology was mapped at a scale of one inch to 400 feet.

GEOLOGY:

The only rock found in place on the Farr Lake property is granodiorite with the following estimated average mineral composition:

Feldspars	-	40 percent
Quartz	-	25 "
Amphibole	-	20 "
Biotite	-	10 "
Magnetite	-	3 "
Sphene	-	2 "

In a few places there is a small amount of epidote and pink feldspar alteration. Small patches of greenish feldspar and a few inclusions were observed. The inclusions are usually distinguished by a slightly smaller

grain size and a higher percentage of dark minerals. Surface alteration has changed biotite and amphibole to a chlorite mineral.

At the trenches on the Lulu No. 1 claim there is a strong zone of limonite alteration. The granodiorite is heavily stained by limonite and both biotite and amphibole are altered to chlorite. Cubic box-works of limonite occur sparsely in this rock and were probably formed by the weathering of pyrite. Minor occurrences of malachite were found in the altered rock and within nearby fractures in unaltered granodiorite. Contacts between altered and unaltered granodiorite were not seen so strike and width of the zone of alteration are unknown. However, the distribution of exposures suggests it strikes northwesterly and is about 300 feet in width.

CONCLUSIONS:

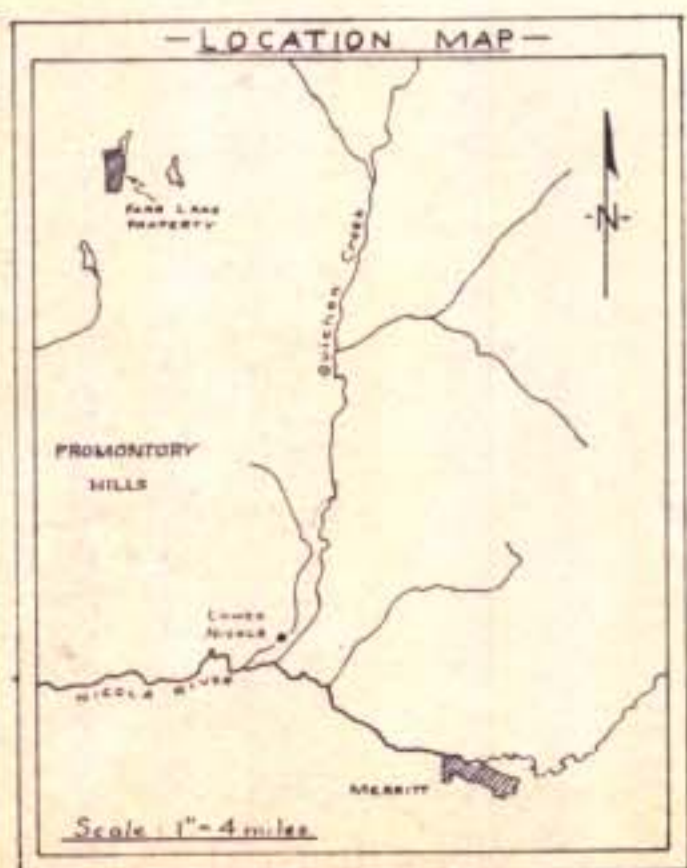
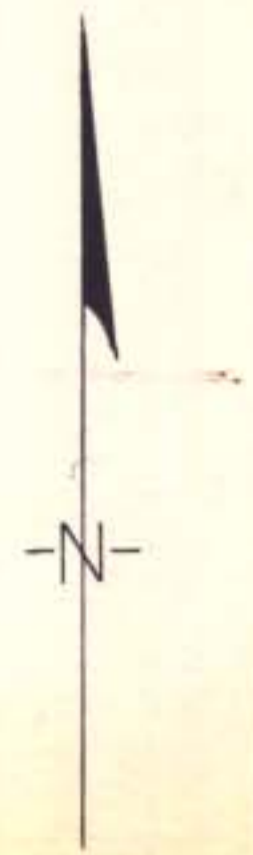
1. No important copper mineralization has yet been found on the Farr Lake property.
2. A "Craignont-type" metasomatic ore deposit is virtually impossible on the Farr property because of the absence of Nicola rocks.
3. A vein-type copper deposit similar to that found in the O.K. mine could occur on the Farr Lake property.
4. The composition of the intrusive is uniform and there is no evidence of younger intrusives, breccia zones, or widespread disseminated copper mineralization, all important features in Highland Valley area.

Respectfully submitted,

*M. M. Menzies*

Morris M. Menzies, P. Eng.

31st October 1958



- LEGEND**
- PHYSICAL FEATURES:**
- Survey Station
  - Claim post
  - ⊖ Swamp
  - Road
- GEOLOGY:**
- 2 Unaltered Granodiorite
  - 1 Altered Granodiorite

223

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 323 MAP #1

NORANDA EXPLORATION COMPANY LTD.

FARR LAKE  
PROPERTY

Mining Division

**GEOLOGICAL MAP**

Field Work by: L.M.H.T.C. Date: October 1958

SCALE: 1" = 400'