# 2317

# GEOCHEMICAL REPORT

<u>on</u>

# FLO GROUP MINERAL CLAIMS

ALBERNI M.D.

49<sup>0</sup>19' N.

126<sup>0</sup>08' W.

N.T.S. 92-E-8 W/2

Vancouver, B.C.

March 1970

R.B. Band

J.J.McDougall

# CONTENTS

		PAGE
	INTRODUCTION	1
	LOCATION AND ACCESS	1
	GENERAL GEOLOGY AND PROPERTY DESCRIPTION	i
	METHOD OF SURVEY:	
	(a) Reconnaissance	2
	(b) Soil Grid	2
	LABORATORY TECHNIQUES	3
	RESULTS AND INTERPRETATIONS	
	(a) Reconnaissance	3
	(b) Soil Grid	4
	STATEMENT OF WORK	FOLLOWS PAGE
	STATEMENT OF QUALIFICATION J.J. McDougall	fi ff 1
	LIST OF ILLUSTRATIONS:	
#1	A. F.I. $1/69$ - Location Map, Flores Soil and Silt Grid - $1^{17}$ = $1/4$ mile.	IN POCKET
#2	B. F.I. 2/69 - Reconnaissance Silt and Soil Sampling 1" = 1/4 mile.	· 11 11
<b>F3</b>	C. F.I. 3/69 - Soil Sample Grid - 1" = 200 feet.	11 11

Department of

Mines and Petroleum Resources

ASCESSMENT REPORT

NO. 23/7 MAP

## GEOCHEMICAL REPORT

ON

## FLO GROUP MINERAL CLAIMS

#### INTRODUCTION

During the summer of 1969 a reconnaissance silt survey programme was undertaken on and around our previously located mineral claims covering a copper prospect on Flores Island. This was followed by a more detailed soil survey over a portion of the claims. Map F.I. 1/69 enclosed shows the work location with respect to the claims while F.I. 2 and F.I. 3 are more detailed plottings of the copper and molybdenum values obtained.

#### LOCATION AND ACCESS

The Flo claims are located inland on Flores Island about 15 miles northwest of Tofino. Elevations range from 1000 to 2400 feet. Although only 3 1/2 miles northwest of the Indian Village of Ahousat, the country is so difficult to traverse that more than a day is required to walk this distance. Thus helicopter support has been relied on solely.

## GENERAL GEOLOGY AND PROPERTY DESCRIPTION

The mineral claims were located to cover local chalcopyrite-pyrite mineralization in a relatively small possibly Tertiary
quartz diorite plug which intrudes basic to intermediate Karmutsen
meta-volcanics. The deposit was discovered by us during regional
work in the early 1960's. About 25% of the claim area contains rock
exposure restricted to steep cliff-like outcrops. Except for about

30% of the remainder which consists of upland swamp and meadow, tree cover is heavy. Detailed geological mapping has mnever been carried out.

# METHOD OF SURVEY

#### (a) Reconnaissance

A total of 83 silt samples and 37 soil samples were collected during an initial reconnaissance survey. The locations of all reconnaissance sample sites were recorded on a topographic base map at a scale of 1 inch to 1 mile.

Silt samples were taken from the active sediment in the central portion of the stream channel. The samples were placed in water-resistant paper packets on which the following information was recorded: sample number, date, grain-size and organic content of the sample.

Soil samples were taken at approximately 6" depths
(B Horizon) with a grub hoe and were placed in water-resistant
paper packets on which the following information was recorded:
Sample number, date, sampling depth, horizon, colour and moisture content.

## (b) Soil Grid

A grid 4400 feet long in a north-east to south-west direction and 4000 feet wide in a north-west to south-east direction was laid out with chain and compass. Soil samples totaling 361 were collected with grub hoes at intervals of 100 feet along 400 foot spaced north-west to south-east lines. The samples were taken from the B horizon at a depth of approximately 6 inches. An additional 16 soil samples were collected from poorly defined drainage channels where these were intersected

by the north-west to south@east grid lines. The soil samples were placed in water-resistant paper packets on which the following information was recorded: date, sample number, line number and footage, sampling depth, horizon, colour, moisture content; if the sample was collected in a drainage channel this fact was also recorded.

All samples were shipped to the Falconbridge Laboratory in Vancouver for analysis.

## LABORATORY TECHNIQUE

The samples were dried in a gas fired hot air drier and hand screened through 80 mesh standard nylon screens.

The minus 80 mesh portion of the dried sample was analyzed for copper and molybdenum by standard geochemical methods.

The copper analyses were done by standard Atomic Absorption techniques. Molybdenum was determined by fusing 250 m.g. of sample with alkaline flux to render the molybdenum soluble. The fusion was leached with demineralized water and an aliquot of the leach liquor treated with 2.5 percent solution of hydroxylamine hydrochloride in hydrochloric acid and one percent zinc dithiol solution. After shaking to develop the coloured molybdenum complex, the samples were compared with previously prepared standards to obtain the molybdenum concentration.

# RESULTS AND INTERPRETATION

#### (a) Reconnaissance

Reconnaissance samples were analyzed for Cu. only. Concentration levels are:

	Regional Bkd.	Local Bkd.	Anom.	Range	Mode	
Silts	< 25	25-50	> 50	7-196	20-25	ppm. Cu.
Soils	< 25	25-50	> 50	6-168	5-10	ppm. Cu.

The reconnaissance results (figure F.I. 2/69) indicate three anomalous areas. Minor copper mineralization was noted during the reconnaissance survey in the area to the east of Alto Lake and a soil grid was laid out to test this anomalous zone.

# (b) Soil Grid

Samples from the soil grid were analyzed for both Cu. and Mo. Concentration levels are:

		Regional Bkd.	Local Bkd.	Anom.	Range	Mode
ppm.	Cu.	< 25	25-50	50	1-290	6-10
ppm.	Mo.	< 2	< 2	> 2	< 2-14	< 2

Cu. values 50 ppm. are concentrated in the N.W. quadrant of the soil grid and form a well defined anomalous zone (figure F.I. 3/69). The marrow, elongate anomalies trending southwards from the main anomaly coincide with drainage channels and are probably due to accumulation of copper in swampy ground.

Mo. values are low, only five samples having > 2 ppm. Mo. There is no correlation between high Mo. and Cu. contents.

Vancouver, B.C.

March 1970

R. B.  $\triangle$ Band

J. J. McDougal

R.B. Bank

The Mining Recorder, Port Alberni, B.C.

Dear Sirs:

This is to certify that the geochemical work done on the Flo Group of mineral claims was done under my supervision,

Messrs. Munday and Holtz of Falconbridge Nickel Mines Limited are qualified geochemical samplers completely conversant with proper sampling techniques.

The analyses and evaluation of the results were done under the direction of Dr. I.L. Elliott, Chief Geochemist and Dr. R.B. Band, Assistant Geochemist for Falconbridge Nickel Mines Limited. Messrs. Elliott and Band received their Doctorates from the Royal School of Mines, Imperial College, London, England.

Yours very truly,

FALCONBRIDGE NICKEL MINES LIMITED

J.J. MoDougall, P. Eng. (B.C.)

# DOMINION OF CANADA:

To Wit:

In the Matter of

GEOCHEMICAL REPORT ON

FLO GROUP MINERAL CLAIMS

₹, J.J. McDougall

of Vancouver , B. C.

in the Province of British Columbia, do solemnly declare that the following work was done.

Party Chief and Sampler

B. Munday	May 21/69 - June 4/69(incl.) 15 days @ \$22.00	ф	405.00
Sampler			
C. Holtz	May 21/69 - June 4/69(incl.) 15 days @ \$22.00		330.00
Laboratory Charges	Recce Samples - 25 @ \$2.50		62.50
	Soil Grid -377 @ \$3.00	1,	,193.50
Helicopter Time	4 hrs. @ \$200.00/hr. (2 trips - Vancouver		
	return - Company owned FH 1100 helicopter)		800.00

\$ 2,791.00

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City

of

Vancouver

Province of British Columbia, this

day of April

A Commissioner for taking Affidavits within British Columbia or A Notary Public in and for the Province of British Columbia.

FLO #7 FLO # 9 F40 # SKETCH MAP SHOWING LOCATION OF SOIL GRID IN RELATION TO "FLO" CLAIM GROUPS.

MAP REF. No.: F. I. 1 /69 N.T.S.: 92 E

LEGEND

SOIL GRID.

Department of Mines and Petroleum Resources

ASSESSMENT REPORT

NO. 2317 MAP #1

FALCONBRIDGE NICKEL MINES LTD.

PROPERTY:

LOCATION: FLORES ISLAND, B.C.

TYPE OF MAP: SKETCH

BASED ON:

DATE OF WORK:

DATE: FEB 1970

DRAWN BY: 7 B. BAND

SCALE: 1 INCH TO 1/4 MILE



