

GEOCHEMICAL REPORT

ON THE

MacDUCK CLAIM

LIARD M. D., B. C.

Latitude 58°04'19"N Longitude 127°48'42"W

N. T. S. 94-L -4

FALCONBRIDGE NICKEL MINES LIMITED

Vancouver, B. C.

July 20, 1977

I. L. Elliott, P. Eng.

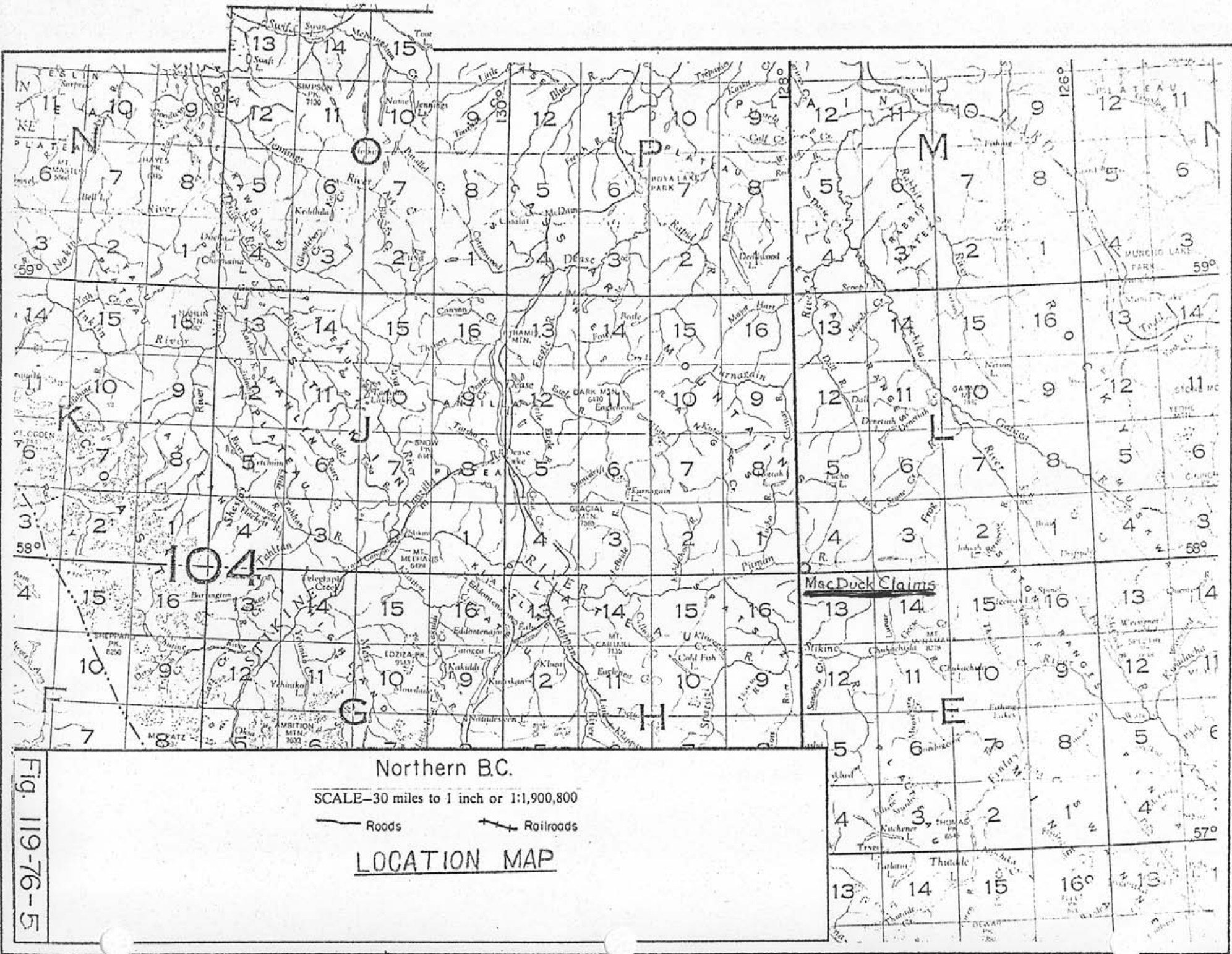


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## GEOCHEMICAL REPORT

MacDUCK CLAIM, LIARD M. D., B. C.

### LOCATION AND ACCESS

The MacDuck mineral claim is situated on a hill on the south bank of the Pitman River about 25 miles upstream from the Pitman - Stikine junction. It is accessible only by helicopter, 84 air miles from Dease Lake.

### INTRODUCTION

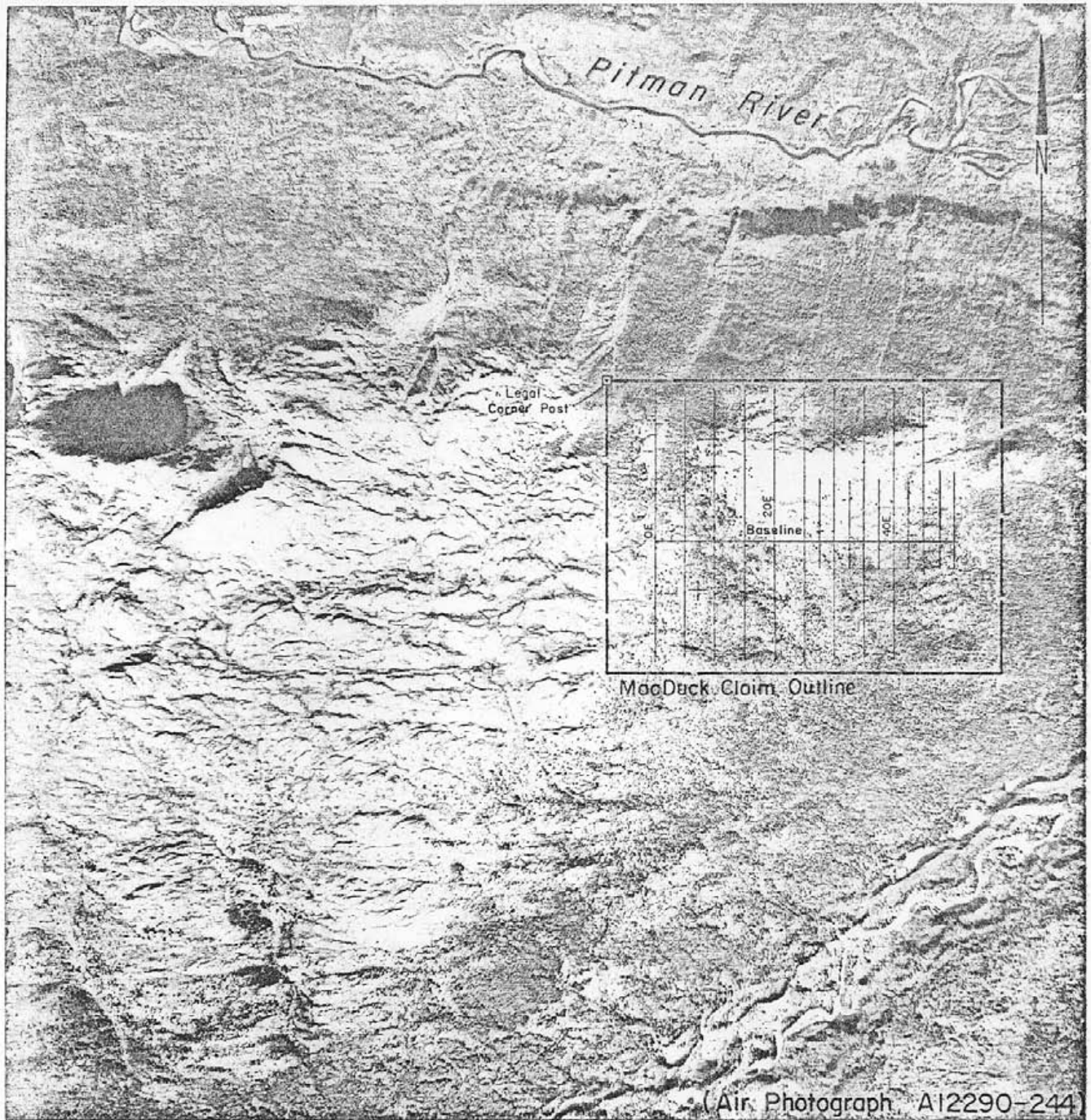
Between July 8 and July 20 1976 a total of 230 soil samples were taken from a grid established by Bruce MacDonald & Dave Clyde, Falconbridge Nickel Mines employees. In August, 1976 an additional 120 samples were taken from intermediate points on the same grid.

### GENERAL GEOLOGY

The MacDuck Claim is underlain by Mesozoic greenstones, with locally, small bodies of meta-sediments and unmetamorphosed Volcanic rock. In a few localities, pyritiferous rhyolites produce prominent gossans.

### TOPOGRAPHY & SOIL COVERAGE

The property encompasses a steep-sided, east-west trending hill at the eastern end of a low range of mountains (approx. average height 5500') maximum relief is about 2000'. The soil is mostly residual material, and well developed. Above treeline, the A horizon is poorly developed except in swamps.



MacDuck Property Scale - 1" = 1/2 mile (approx.)  
N.T.S. - 94L/4W

#### METHOD OF SURVEY

Samples were collected at 200 ft. intervals on lines spaced 500 feet apart. Later, the sample interval was shortened to 100 ft. on lines 250 ft. apart in order to more accurately define the anomalous areas. The samples were taken from immediately beneath the A horizon wherever possible, or at a depth of 3 to six inches, where no A horizon was present. All samples were analyzed for Cu, Zn, Pb, & Ag, and some selected samples for Mo and Au.

#### LABORATORY TECHNIQUES

Soil samples were dried in a hot air oven and sieved to pass through 80 mesh nylon screen. Copper, Zinc, Lead and Silver were determined on a one gram<sup>m</sup> sample of the minus 80 mesh fraction of the soil samples by standard atomic absorption techniques following dissolution in a 1:1 nitric/perchloric acid mixture. Silver values were corrected for spectral background interference.

#### RESULTS AND INTERPRETATION

The accompanying maps Figs 1, 2, and 3 show respectively the spatial distribution of Copper and Zinc values, of Lead and Silver values and the sample numbers.

Metal level statistics are as follows (in p.p.m.)

<u>Metal</u>	<u>Range</u>	<u>Modal Range</u>	<u>Local Bkd.</u>	<u>Anomalous</u>
copper	8 - 219	20 - 30		> 50
zinc	5 - 600	70 - 90	150 - 250	> 250
lead	3 - 280	10 - 20	25 - 40	> 40
silver	0.2- 4.7	0.2		> 1.0

Anomaly threshold values were determined by visual inspection of the data.

High values of all elements occurring in proximity to lines 40E and 45E between stations 2S to 4N and located by the initial sampling were confirmed by the closer follow-up sampling. These values obviously deserve closer investigation by prospecting and possible trenching. Metal values tend to be higher north of the baseline than south of it. This is probably a reflection of a generally higher metal background level in the schists compared to the volcanics.

The Copper/Zinc anomalies on line 45E at stations 800N and 1000N should also be investigated although they are probably due to rather local metal concentrations in iron rich surficial material.

#### RECOMMENDATIONS

The following areas should be further prospected and, if necessary, trenched.

1. The Cu, Zn, Pb, Ag anomalies lines 40E - 45E between stations 200S and 400N

2. The Cu, Zn anomalies on line 45E at stations 800N and 1000N.

A handwritten signature in cursive script, appearing to read "I.L. Elliott".

I.L. Elliott

Vancouver, B.C.

July 20, 1977



A P P E N D I X



**B. DRILLING**

(Details as per report submitted)

COST

I wish to apply \$ \_\_\_\_\_ of this work to the claims listed below.  
 (State number of years to be applied to each claim and its month of record)

**C. PROSPECTING**

(Details as per report submitted)

COST

I wish to apply \$ \_\_\_\_\_ of this work to the claims listed below.  
 (State number of years to be applied to each claim and its month of record)

**D. ~~GEOLOGICAL~~ GEOCHEMICAL, ~~GEOPHYSICAL~~ (Includes line cutting)**

(State type of work)

		COST
Labour:	B. McDonald 1,053.70 18 days July 8-20, 1976	
	D. Clyde 710.10 18 days Aug. 5-10, 1976	
		1,764.00
Camp Supplies and Transportation		1,153.77
Assays:	Cu-Zn 332 x 1.75 = 581.00	
	Pb-Ag 332 x 1.25 = 415.00	
	Sample Prep 664 x 0.35 = 232.40	1,228.40
<b>TOTAL</b>		<b>\$4,146.17</b>

I wish to apply \$ 2,400.00 of this work to the claims listed below.  
 (State number of years to be applied to each claim and its month of record)

2 years each to MacDuck (12 units) 2,400.00

(Supporting report to follow in 3 weeks)

NOTE—Dollar value of work done under A, B, C, or D sections, totalling \$200, may be applied as one year's work.

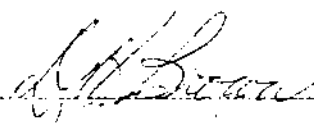
Who paid for the above-described work?

Name FALCONBRIDGE NICKEL MINES LTD.  
 Address 700-1112 West Pender St.  
Vancouver, B.C. V6E 2S1

If you intend to claim a refund of cash in lieu under the provisions of the *Mineral Act*, you must make application on this affidavit under A, B, C, or D sections as applicable.

4. That I have not and will not use the work declared herein in any way for the purposes of obtaining tax exemption on a Crown-granted mineral claim under the terms of the *Mineral Land Tax Act*.

SWORN and subscribed to at \_\_\_\_\_  
 this \_\_\_\_\_ day of \_\_\_\_\_  
 19 \_\_\_\_\_, before me—  
 \*



### BRITISH COLUMBIA MINING RECEIPT

Mining Division Lead

Issued at Vancouver

No 112180 E

Date July 20, 1977

RECEIVED from Alconbridge Nickel Mines Ltd.

the sum of two hundred & forty — <sup>00</sup>/<sub>100</sub> Dollars,

in payment of Recording 2 years work and  
rental on HAE DUCK claim (12 units).

Signature Jill Lunn

\$ 240.00

Office Sub-mining Recorder



**FALCONBRIDGE NICKEL MINES LIMITED**

1112 West Pender Street, Vancouver, B.C. Canada Suite 700  
V6E 2S1 Telex 04-53245  
Telephone (604) 682-6242

July 21, 1977

The Chief Mining Recorder,  
Liard Mining Division,  
Victoria, B.C.

Dear Sir,

This is to certify that the geochemical work done on the MacDuck claim presented in this report was done under my direction. Mr. Bruce McDonald, B.Sc. is a 1975 graduate in geology of the University of British Columbia in the employ of Falconbridge Nickel Mines Ltd.,

Mr. D.B. Clyde is a U.B.C. geology student who has received instruction in geochemical prospecting techniques and is temporarily employed by Falconbridge.

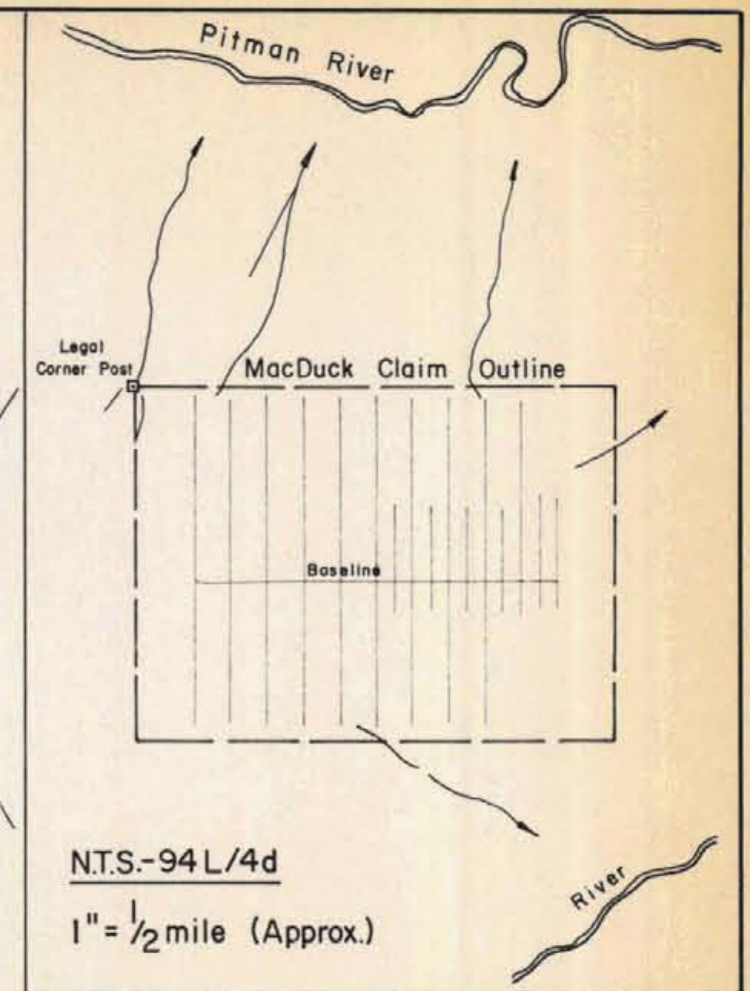
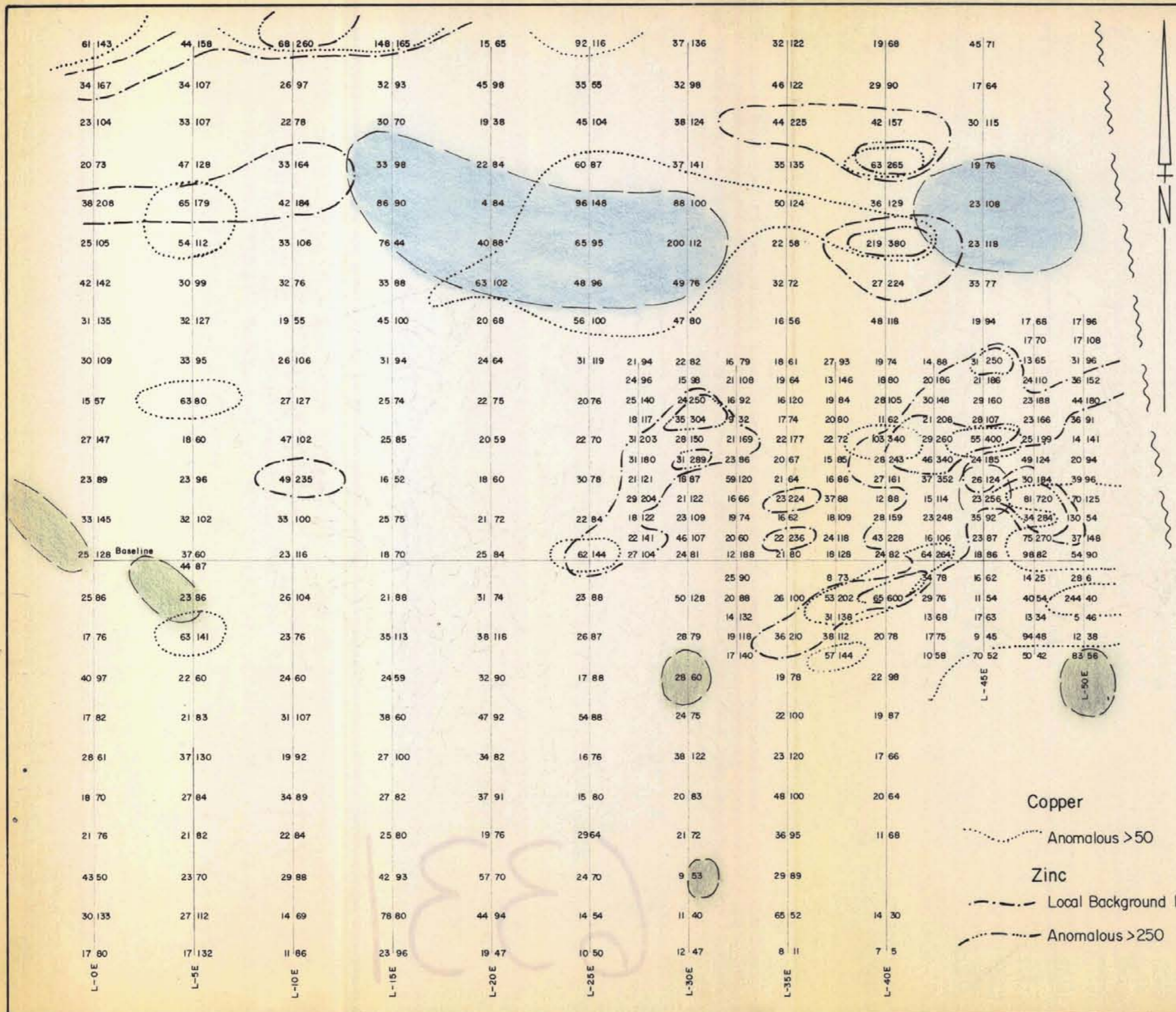
I am an honours geology graduate (1959) of the University of Manchester, and hold a Ph.D. in Applied Geochemistry from the University of London (1962). I am a member of the Association of Professional Engineers of British Columbia.

Yours truly,  
FALCONBRIDGE NICKEL MINES LIMITED,

I.L. Elliott, P. Eng.  
Chief Geochemist

Encl.

ILE:pb



- Schists-gossanous
- Volcanics, Greenstone
- Approx. Outcrop Areas
- Inferred Fault

Soil Sample Site  
Cu Zn  
35 92

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
NO. **6331**

MacDuck Property

Geochemistry  
Cu-Zn (ppm)

Scale  
1" = 500' (1cm = 60m)

- Anomalous >50
- Local Background 150-250
- Anomalous >250

**6331**

July 4/77

Fig.-1



Note  
 For Claims and Geology see Fig. 1

Silver  
 Anomalous >1.0  
 Lead  
 Local Background 25-40  
 Anomalous >40

MINERAL RESEARCH BRANCH  
 No. 6331

MacDuck Property

Geochemistry  
 Pb-Ag (ppm)  
 Scale  
 1"=500' (1cm=60m)

*Robert L. ...*

6331

