

5518

103G/8E

GEOCHEMICAL REPORT

ON THE

YELLOW GROUP - BANK MINERAL CLAIMS

BANKS ISLAND, B.C. SKEENA M.D.

Latitude $53^{\circ}22'30''N$, Longitude $130^{\circ}12'00''W$

N.T.S. 103-G-8

Vancouver, B.C.

Dr. I.L. Elliott

June 20, 1975

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5518 MAP

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NO. 3518 MAP 1



LOCATION MAP
BANK AND BANKER CLAIMS

Lat. 53° 22' 30" N. Long. 130° 12' 00"

Scale: 1:200,000
1" = 3.2 mi.

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MAP 1



GEOCHEMICAL SURVEY

YELLOW GROUP, BANKS ISLAND, B.C.

Introduction

Between September 26th and October 28th a geochemical survey involving six Falconbridge Nickel Mines Limited, and Wesfrob Mines Limited personnel was carried out on the Yellow Group, Banker 141, 143 145, 147 M.C. 's Banks Island, B.C.

Location and Access

Banks Island is a northwesterly trending 40 mile by 20 mile uninhabited island on the east side of Hecate Straits, approximately 60 miles east of the Queen Charlotte Islands on the B.C. northwest coast.

General Geology

Banks Island is largely underlain by granitic rocks of the Coast Intrusions of which light coloured granodiorite, quartz monzonite and quartz diorite are most common, although darker dioritic to gabbroic phases are also present. These rocks intrude older sedimentary formations of which only remnants remain. The remnants lie in northwesterly-trending belts. A series of northwesterly shear zones cut by easterly and north-easterly joint planes provide the locus of the mineralization present.

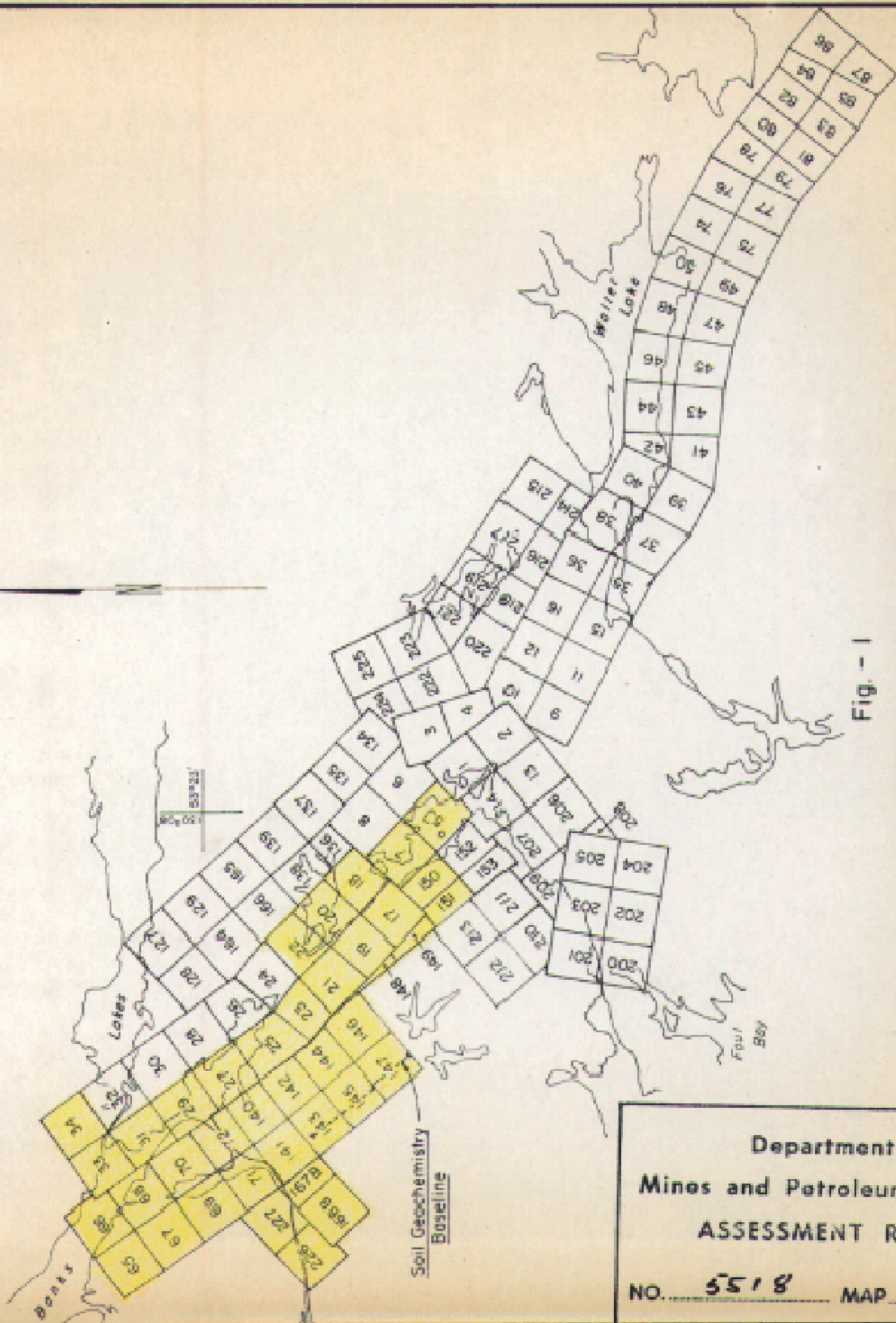


Fig. - 1

Location of Yellow Group
Banks and Banker Claims, Banks Is

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Topography and Soils

The area surveyed is one of gentle to low relief characterized by numerous lakes with interconnecting drainage separated from each other by rocky hills. Soil development is poor with a thin colluvial mantle on the hill slopes grading into predominantly organic rich muck in the shallow valleys.

Method of Survey

A 4900 foot base line bearing 324° T. crossing Banker 147, 145, 143, 141 with thirteen crosslines at 400 foot intervals totalling 8525 feet were cut by the Falconbridge-Wesfrob crew.

In May, 1974 during an earlier geochemical survey, two test lines were run on which samples were taken from both A and B or C horizons. These samples were tested analytically for arsenic, mercury, zinc and silver. The results showed that :

1. With special care to eliminate as much obviously undecomposed organic material as possible, the organic 'A' horizon regularly contained higher element concentration levels than inorganic soils.
2. Arsenic and silver are useful pathfinder elements in locating gold mineralization on Banks Island.

Having established the geochemically best horizon to sample, 'A' horizon samples were taken using a short handled shovel along the Base and Cross lines at 25 foot intervals, and after removing most of the undecomposed vegetation, the samples were packed into water resistant Kraft paper bags. About one pound of sample material was obtained at each sample station from depths of 6" - 18". In all 370 samples were collected and bagged for shipment to the Falconbridge laboratory in Vancouver.

Laboratory Techniques

a) Preparation

The samples were dried in a gas fired, hot air oven and hand screened through 80 mesh nylon screen.

b) Analysis

Silver and zinc were determined on a one gram sample of the minus 80 mesh fraction of the samples by standard atomic absorption techniques following dissolution in 1:1 nitric-perchloric acid mixture. Silver values were corrected for spectral background interference. Arsenic was determined on a 0.5 gram sample of the minus 80 mesh fraction by the silver diethyldithiocarbonate method (reaction of arsine liberated by the action of zinc metal on the acidified sample solution with a solution of silver D.D.C. in pyridine to give a yellow to red coloured complex depending on the amount of arsenic present) following dissolution in a hot 1:3 mixture of nitric and perchloric acids.

Results and Interpretation


As can be seen from the accompanying maps (Figs. 2, 3, 4), arsenic values in the organic soils of Banks Island range from 1 ppm to 100 ppm with a modal value of 1 ppm; silver values range from 0.1 ppm to 3.8 ppm with a mode of 0.1 ppm, and zinc values range from 1 ppm to 92 ppm with a modal value of less than 10 ppm. Threshold values for the purpose of indicating anomalous areas were defined by visual inspection of the data. Poor analytical precision at the low concentration levels recorded for As and Ag does not permit any sophisticated statistical treatment.

Anomalous metal values are too widely spaced to be contoured or connected. It appears that the area between lines OW to 24W is of more interest than that between lines 24W and 40W.

Recommendation

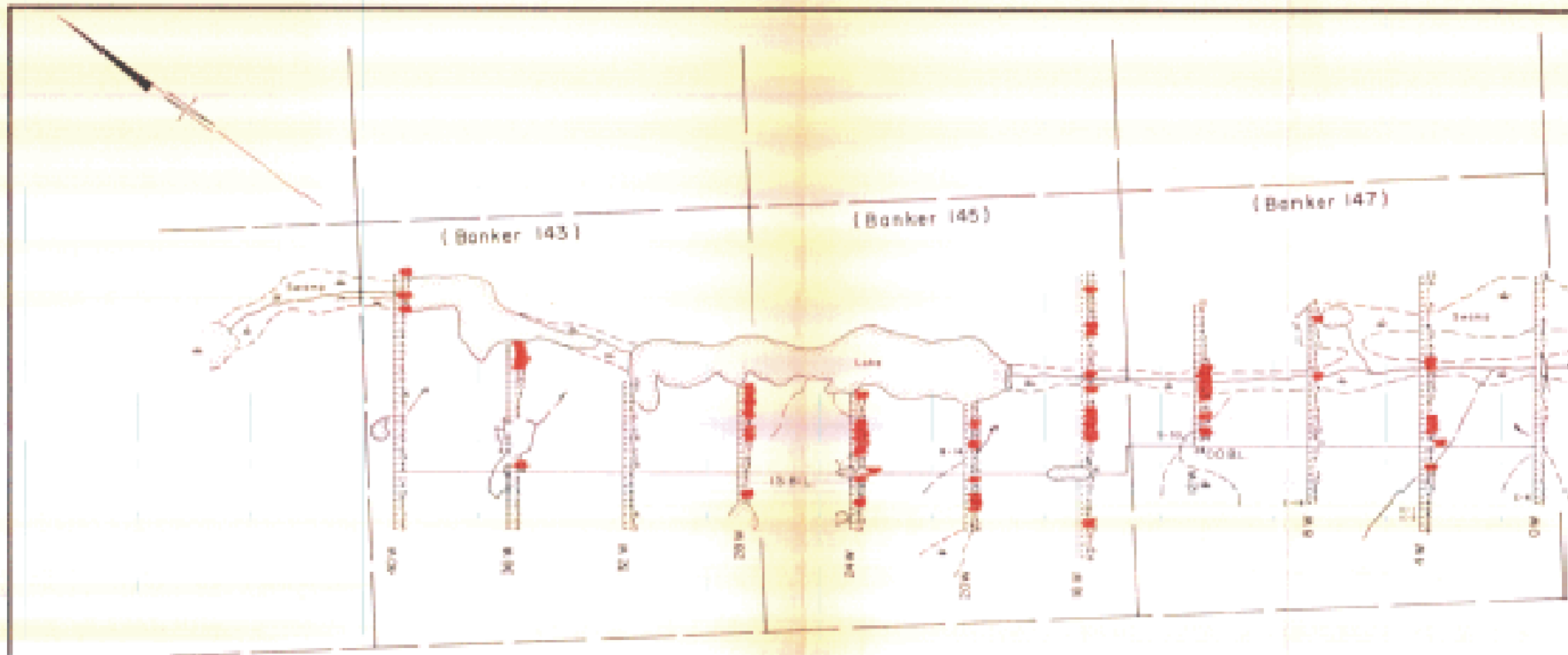
Each occurrence of Very anomalous values deserves further investigation by diligent prospecting, e.g.

For Ag.	OW 350N - 375N
For Zn.	12W 200N - 275N
For As.	20W 100N; 24W 275N and 40W 750N



I.L. Elliott

June 20, 1975



Sample Site Zn values in ppm

- 50 -
- 30 - 49
- 0 - 29

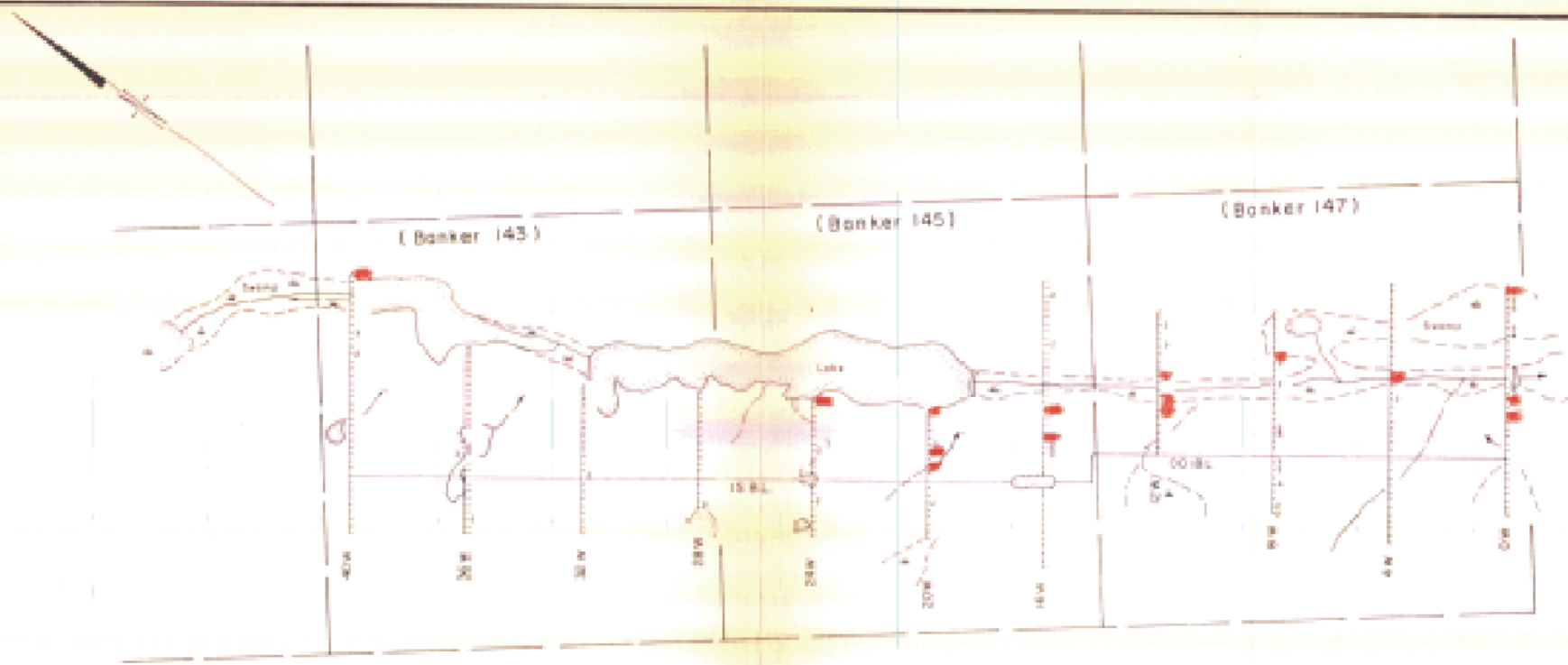
All samples are "C" Horizon unless designated otherwise - B = "B" Horizon
 C = "C" Horizon
 S = Site

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Fig - 2
 Banks Island
 SOIL GEOCHEMISTRY

Zn in ppm
 Scale 1"=400'
 N.T.S. - 1036/8
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MAP 3

M.S.E. June 1975



Sample Site → As values in ppm.

- 5+
- 5-14
- 0-4

Only As values in excess of 1 ppm plotted.

All samples are "W" horizon unless designated otherwise.

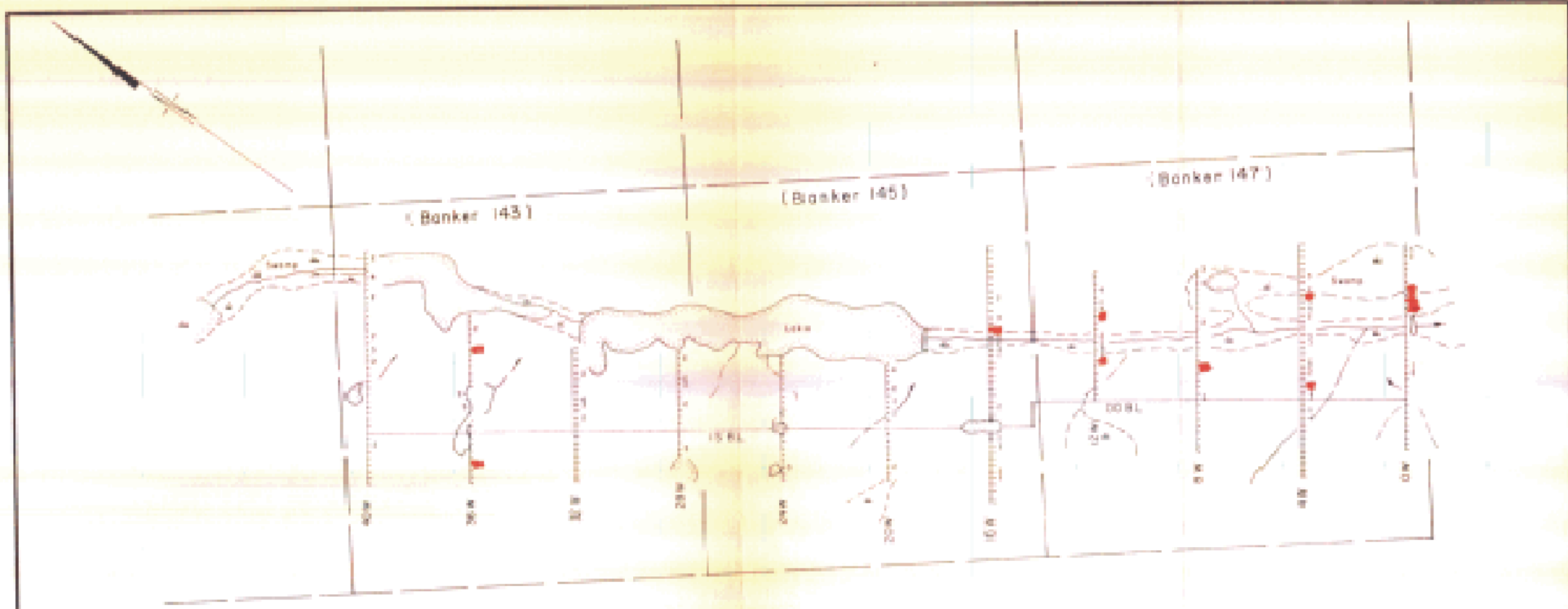
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Fig - 3
Banks Island
SOIL GEOCHEMISTRY

As in ppm **5518**
Scale 1"=400'
N.T.S. - 1096/8 **MAP 4**

R.J.E.

June 77



Sample Site | Ag values in pp10m

Red square	10+
Red rectangle	5-10
White rectangle	0-5

Only Ag values in excess of 0 ppm plotted

All samples are 0-10cm unless designated otherwise

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Fig - 4
 Banks Island
 SOIL GEOCHEMISTRY

Ag in pp10m
 Scale 1"=400'
 N.T.S.-1030/8

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 MAP 5

APPENDICES

DOMINION OF CANADA:
 PROVINCE OF BRITISH COLUMBIA:
 To Wit:

In the Matter of a Geochemical Survey carried out on
 Mineral Claims within the YELLOW GROUP, Lat. 53° 22'30" N,
 Long. 130° 12'00" W.

I, DAVID H. BROWN,
 of 500-1112 WEST PENDER STREET, VANCOUVER, V6E 2S3

in the Province of British Columbia, do solemnly declare that the following expenses were incurred in carrying out a geochemical grid survey on claims BANKER 141, 143, 145, 147 (YELLOW GROUP) of the Banks Island property.

<u>LABOUR</u> <u>Period</u> <u>1974</u>	<u>Name</u>	<u>No.</u> <u>Days</u>	<u>Daily</u> <u>Rate</u>	<u>Total</u>	<u>Portion Applicable to</u> <u>BANKER 143, 145, 147</u> <u>x 304/370 or 0.822</u>
Sept.26-Oct.28	R. McPhee (50%)	16 da.	\$47.27	\$ 756.32	\$ 621.70
Oct.10-28	K.Christensen	19 da.	40.91	777.29	638.93
Oct.10-28	B.Downing	19 da.	42.73	811.87	667.36
Oct.10-28	B.Manchuk	19 da.	56.36	1,070.84	880.23
Oct.10-28	S.Zastavnikovich	19 da.	48.18	915.42	752.48
Jun.9-11	R.J.Esson	3.3 da.	41.59	137.26	112.83
Collection of 370 soil samples & line cutting				\$4,469.00	\$3,673.53
<u>TRANSPORTATION</u>	Oct.9, 28 : 5 men Van.-Pr.Rup. return		Commercial	\$ 525.00	431.55
	Sept.26, Oct.10, 27 Charter a/c Pr.Rup-Banks Is.(return)			924.00	759.53
<u>CAMP SUPPLIES & CATERING</u>				920.00	756.24
<u>PRINTING, DRAFTING & REPORT WRITING</u>				200.00	164.40
<u>LINE CUTTING</u>	4900 ft. - Base Line) 8525 ft. - Cross Line)		- see Labour		4100' BL 7300' CL -
<u>GEOCHEM. ANALYSES, PROCESSING</u>	370 samples @ \$3.25 =		ASSAYED for Zn, Ag.	1,239.50 (304 samples)	1,018.87
				<u>\$ 8,277.50</u>	<u>\$6,804.12</u>

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*, in the
 Province of British Columbia, this *24th*
 day of *June* 1975, A.D.

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

In the Matter of

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.....
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Statutory Declaration
(CANADA EVIDENCE ACT)



WESFROB MINES LIMITED

(A wholly owned subsidiary of Falconbridge Nickel Mines Limited)

1112 West Pender Street
Vancouver 1, B.C., Canada V6E 2S3

Tel. (604) 682-6242

Telex 04-53245

July 16, 1975

The Chief Mining Recorder,
Skeena - Mining Division,
Prince Rupert, B.C.

Dear Sir,

This is to certify that the geochemical work done on the Yellow Group - Bank M.C.'s presented in this report was done under my direction.

Messrs. MacPhee, Christensen and Zastanikovich are prospectors and geochemical technicians of long standing in the employ of the Falconbridge and Wesfrob companies, and have been trained by me in geochemical field techniques.

Mr. Esson is a trained surveyor and draftsman of high qualifications.

Mr. B. Downing is a 1973 geology graduate (B.Sc. M.Sc.) as is Mr. B. Manchuk (B.Sc. M.Sc. 1971) who have been with the Falconbridge organisation since 1971.

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

Yours very truly,
WESFROB MINES LIMITED,

I.L. Elliott,
Chief Geochemist

Encl. (2)

ILE:pb