2343

GEOCHEMCIAL REPORT

ON

AIRPORT GROUP MINERAL CLAIMS

PRINCE RUPERT M.D.

53°13'00" N.

131°49'00" W.

N.T.S. 103-G-4/W

Vancouver, B.C.

April, 1970

R.B. Band

J.J. McDougall

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GEOCHEMICAL REPORT ON
AIRPORT GROUP MINERAL CLAIMS

INTRODUCTION

During the summer of 1969 a reconnaissance silt sampling project served as the basis for a more detailed soil survey undertaken on the 12 Airport Claims near Sandspit. Map APT 1/69 enclosed shows the work location with respect to the claims while APT 2/69 and APT 3/69 are more detailed plottings of the copper and molybdenum or other values obtained.

LOCATION AND ACCESS

The Airport Claims are located about one mile due south of Sandspit on the Queen Charlotte Islands. The area, between elevation 100 and 500 feet, is lightly wooded (second growth) and moderately well drained above the 200 foot contour. Access is by car and trail from Sandspit although for purposes of expediency our helicopter was used for most of the 1969 work.

GENERAL GEOLOGY AND PROPERTY DESCRIPTION

The claims were located to cover a small Tertiary (?) quartz diorite plug which intrudes Yakoun sediments and volcanics (Jurassic?) in the vicinity of the strong and regional Sandspit Fault well described by Sutherland Brown in B.C. Department of Mines Bulletin #54. Earlier regional silt sampling reconnaissance work showed a few high copper and molybdenum values originating in creeks cutting a fault line scarp related to this Sandspit Fault.

METHOD OF SURVEY

In an initial appraisal of the claims 92 reconnaissance soil samples were collected along widely spaced lines laid out by compass and pacing. A grid 4600 feet long in a northwest to southeast direction was then laid out with chain and compass. A further 208 soil samples were collected at intervals of 100 feet along 400 feet spaced northeast to southwest grid lines.

All soil samples were collected with grub hoes and were taken from the B horizon at a depth of approximately 12 inches. The samples were placed in water resistant paper packets on which the following information was recorded: sample number, line number and footage, date, sampling depth, horizon, colour and moisture content. The samples were shipped to the Falconbridge Laboratory in Vancouver for analysis.

LABORATORY TECHNIQUES

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. Reconnaissance samples were also analyzed for lead and silver.

The copper, lead and silver analyzes 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 1 percent zinc dithiol solution. After shaking to develop the coloured molybdenum complex, the samples were compared with previously prepared standards to obtain the moly-

bdenum concentration.

INTERPRETATION AND CONCLUSIONS

Concentration Levels in Soils:

	Regional Bkd.	Local Bkd.	Anom.	Range	Mode
Cu. ppm.	< 40	40-70	> 70	5-530	21-30
Mo. ppm.	< 2	2-5	> 5	< 2-38	< 2

Reconnaissance Samples Only:

Pb. ppm.	< 50	50-100	> 100	5-345	11-20
Ag. ppm.	< 1.0	1-1.5	> 1.5	0.2-7.2	< 0.5

The reconnaissance sampling (Map APT 2/69) revealed anomalous copper values scattered throughout the claim block. Anomalous molybdenum values occur in association with copper anomalies in the northern-most claims but elsewhere molybdenum contents are in the background range. Anomalous lead and silver values occur in a single sample which also carried the highest copper and molybdenum values obtained from the Airport claims. The reconnaissance results indicated that no significant additional information was obtained by analyzing for lead and silver and subsequent samples were accordingly analyzed only for copper and molybdenum.

The detailed grid (Map APT 3/69) revealed a series of elongate northwest trending copper anomalies. These anomalies are parallel to both the western contact of the granodiorite and the regional northwest fault pattern and may reflect the presence of mineralized fractures in the underlying bedrock. The arcuate northeast trending copper anomaly in the extreme south is possibly indicative of the southern contact zone of the granodiorite stock.

There are no anomalous molybdenum values in the area

covered by the detailed grid, the highest value recorded being 4 ppm. The concentration of anomalous molybdenum values in the extreme north of the area, as indicated by the reconnaissance sampling, is possibly a reflection of primary mineral zoning within the granodiorite stock.

LABORATORY COSTS

45 samples at $4.00 (Cu., Mo., Pb., Ag.)	$ 180.00
255 samples at $3.00 (Cu., Mo.)	765.00
	$ 945.00

R.B. Band

Vancouver, B.C.
April, 1970

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FALCONBRIDGE NICKEL MINES LIMITED

1112 WEST PENDER STREET

VANCOUVER 1, B. C., CANADA

TELEPHONE: 682-6242

TELEX: 04-5938

March 31, 1970

The Mining Recorder,
Prince Rupert, B.C.

Dear Sirs:

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

Messrs. Bacon, Thompson, Preece, Seeman, Rotzien, Christensen, Mickle and Samuelson are qualified geochemical samplers, employed by Falconbridge Nickel Mines Limited, and are completely conversant with proper sampling techniques.

Messrs. McMullen and Zastavnikovich are qualified Party Chiefs employed by the Company for the 1969 field season.

Mr. D.H. Helgesen, Field Geologist, was employed by Falconbridge Nickel Mines Limited from 1964 to the present date. He has a B.A. degree in Geography obtained from the University of British Columbia.

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

James J. McDougall

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

DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA.
TO WIT:

In the Matter of

GEOCHEMICAL REPORT ON
AIRPORT GROUP MINERAL CLAIMS

I, J.J. McDougall

of Vancouver, B.C.

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

SAMPLERS:			
Bacon, D.	- May 22-27	6 days @ $20.00/day	$ 120.00
Thompson, G.	- May 9-10	2 days @ $20.00/day	40.00
Preece, H.	- May 22-27(Incl.)	6 days @ $20.00/day	120.00
Seeman, D.	- May 9-10	2 days @ $20.00/day	40.00
Rotzien, J.	- May 22-27(Incl.)	6 days @ $20.00/day	120.00
PROSPECTORS-SAMPLERS:			
Christensen, C.	- April 14-16	3 days @ $25.00/day	75.00
Mickle, R.	- May 25-27	3 days @ $25.00/day	75.00
Samuelson, R.	- April 14-16	3 days @ $25.00/day	75.00
PARTY CHIEF & GEOCHEMICAL OPERATORS:			
McMullen, J.	- May 22-27	6 days @ $25.00/day	150.00
Zastavnikovich, S.	- May 22-23	2 days @ $25.00/day	50.00
FIELD GEOLOGIST:			
Helgesen, D.H.	- May 22-25	4 days @ $30.00/day	120.00
Falconbridge FH1100 Helicopter		3 hours @ $160.00/hour	480.00
Laboratory Charges		- 45 samples @ $4.00/sample	180.00
		-255 samples @ $3.00/sample	765.00
			$2,410.00

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, in the Province of British Columbia, this 9th day of April 1970, A.D.

James J. McDougall

SUB-MINING RECORDER

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

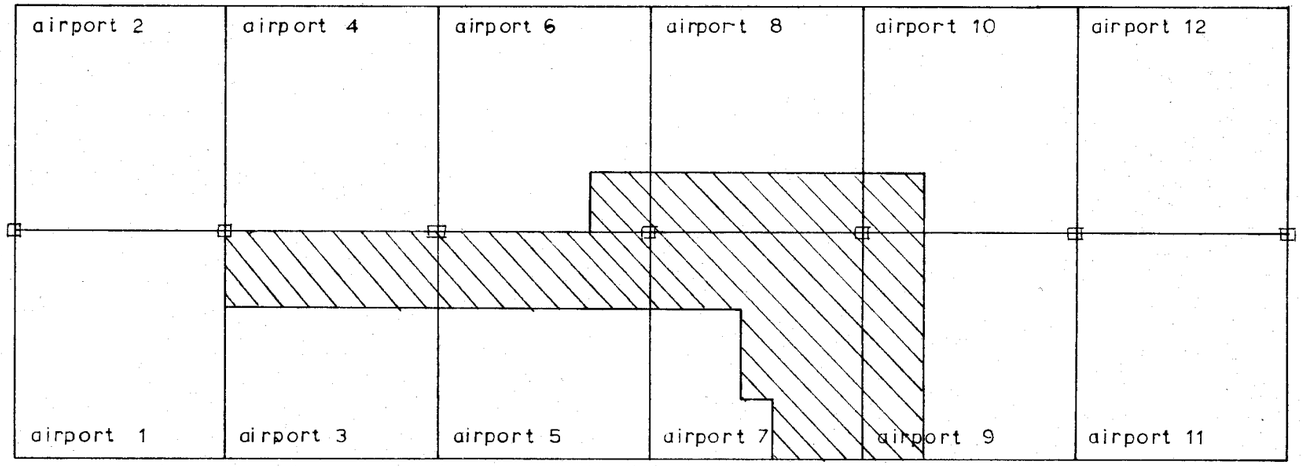
MAP REF. No.: APT 1/69

N.T.S.:

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 2343 MAP #1

N



relationship of soil grid to airport claims

LEGEND

claim post

area covered by soil grid

2343

FALCONBRIDGE NICKEL MINES LTD.

PROPERTY: SANDSPIT

LOCATION: QUEEN CHARLOTTE ISLES

TYPE OF MAP: SKETCH

BASED ON:

DATE OF WORK: MAY 1969

DATE: MARCH 1970

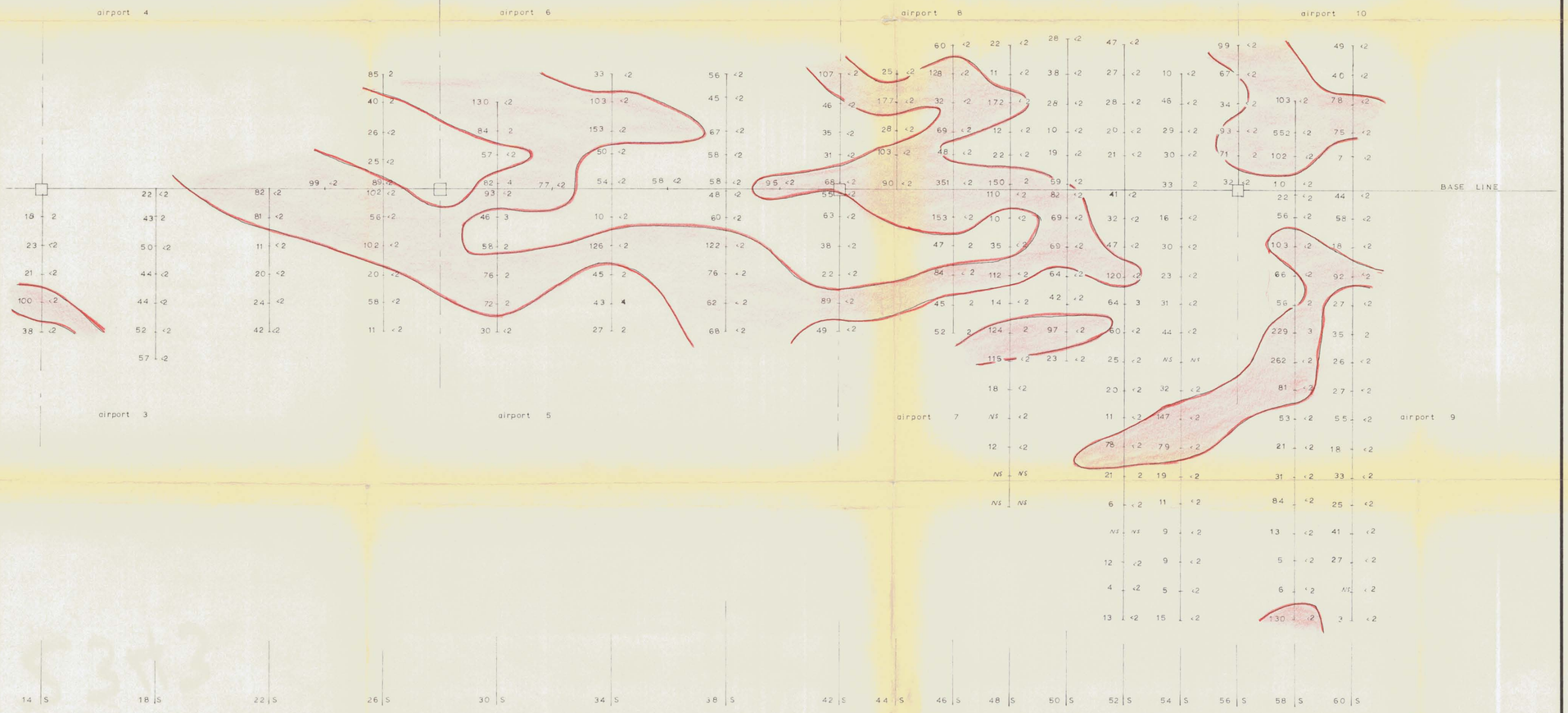
DRAWN BY: R.M^c G

1000 0 1000 2000

SCALE: 1 INCH TO 1000 ft

BCIL - 2547 - F.M.M.

MAP REF. NO.: APT 3/69



LEGEND

- sample location
- 39 ppm Cu in soil
- 2 ppm Mo in soil
- N.S. not sampled
- claim post & number
- airport 3
- 70 ppm Cu

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200 0 200 400 600 800 1000 1200 1400 1600 1800

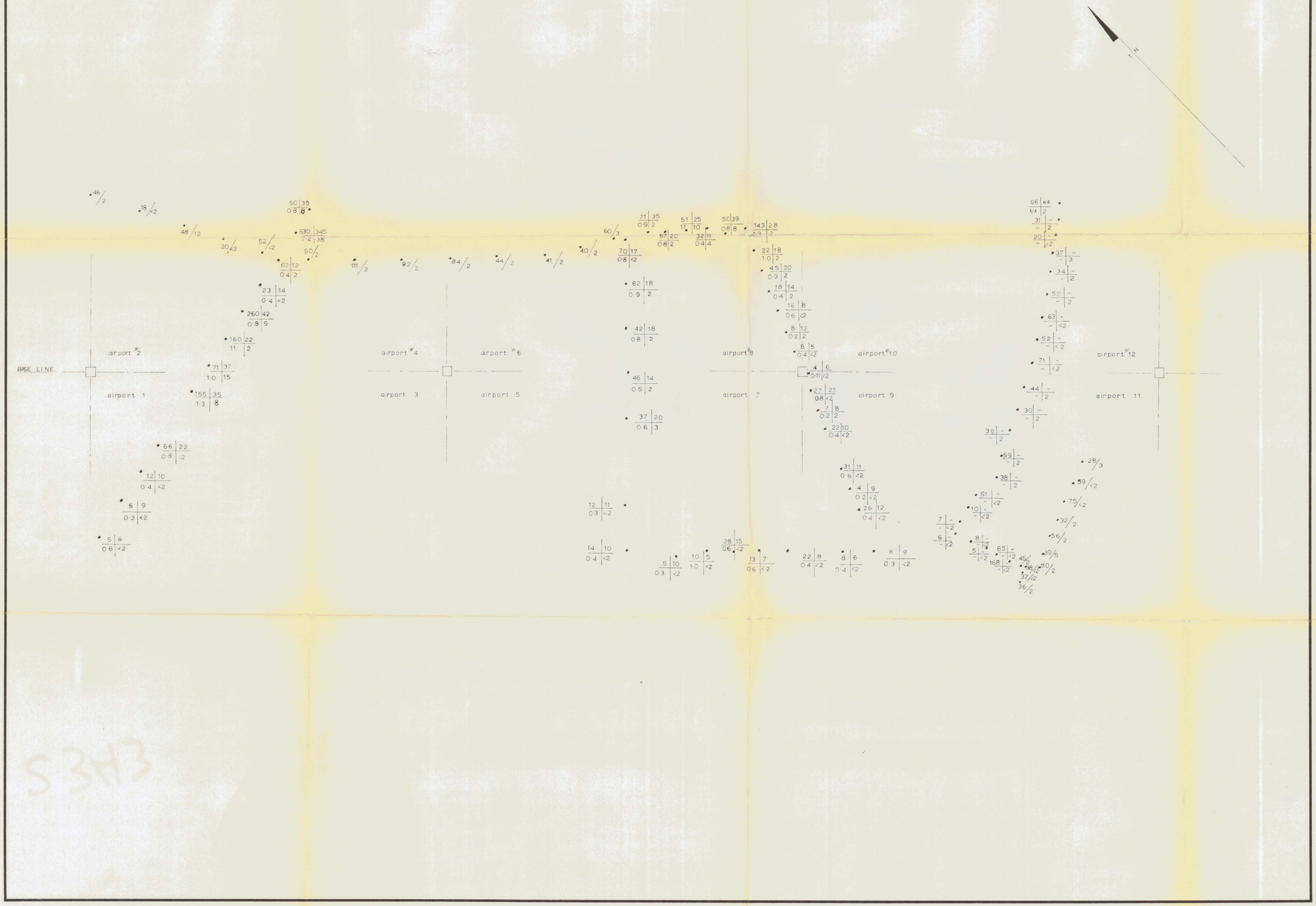
SCALE: 1 INCH TO 200 ft

COMPANY . . FALCONBRIDGE NICKEL MINES LTD
PROPERTY . . AIRPORT CLAIMS
LOCATION . . SANDSPIT, QUEEN CHARLOTTE ISLANDS, B.C.

WORKING PLACE . .
TYPE OF MAP . . Cu & Mo in soils
BASED ON . .

DATE . . MARCH 1970
DRAWN BY . . R BAND & R M°G
DATE OF WORK . . MAY 1969

MAP REF. NO.: APT 2/69



LEGEND

56 — ppm Cu in soil

26 — ppm Pb in soil

2 — ppm Mo in soil

1.0 — ppm Ag in soil

WA — not analysed

airport 3 — claim post & number

Cu / Mo — ppm in soil

S343

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400 0 400 800 1200 1600 2000 2400 2800 3200 3600

SCALE: 1 INCH TO 400 ft

COMPANY . . FALCONBRIDGE NICKEL MINES LTD
PROPERTY . . AIRPORT CLAIMS
LOCATION . . SANDSPIT, QUEEN CHARLOTTE ISLANDS B.C.

WORKING PLACE . .
TYPE OF MAP . . Cu, Pb, Mo & Ag IN SOILS
BASED ON . . RECONNAISSANCE SAMPLING

DATE . . 23/3/70
DRAWN BY . . R BAND & R.M^cG
DATE OF WORK . .