

GEOCHEMICAL REPORT
ON THE

73rd/100W HAGGIS GROUP-HAGGIS CLAIMS

LAT. 55°52'00N, LONG. 125°15'00W

Between July 6-9, 1971 *Q.H.B.*

Vancouver, B.C.

T. Gyr, Ph.D.

July 16, 1971

I.L. Elliott, Ph.D.

31410

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 3140 MAP

GEOCHEMICAL REPORT

ON THE

HAGGIS GROUP-HAGGIS CLAIMS

LAT. 55°52'00N, LONG. 125°15'00W

3140

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Vancouver, B. C.

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GEOCHEMICAL REPORT
ON THE
HAGGIS GROUP OF MINERAL CLAIMS

INTRODUCTION

In June 1971, a geochemical soil and reconnaissance program was carried out on the Haggis group of claims northeast of Old Hogem, Omineca River.

189 samples were collected and analysed for cold extractable and total copper. The results are plotted on accompanying maps.

LOCATION AND ACCESS

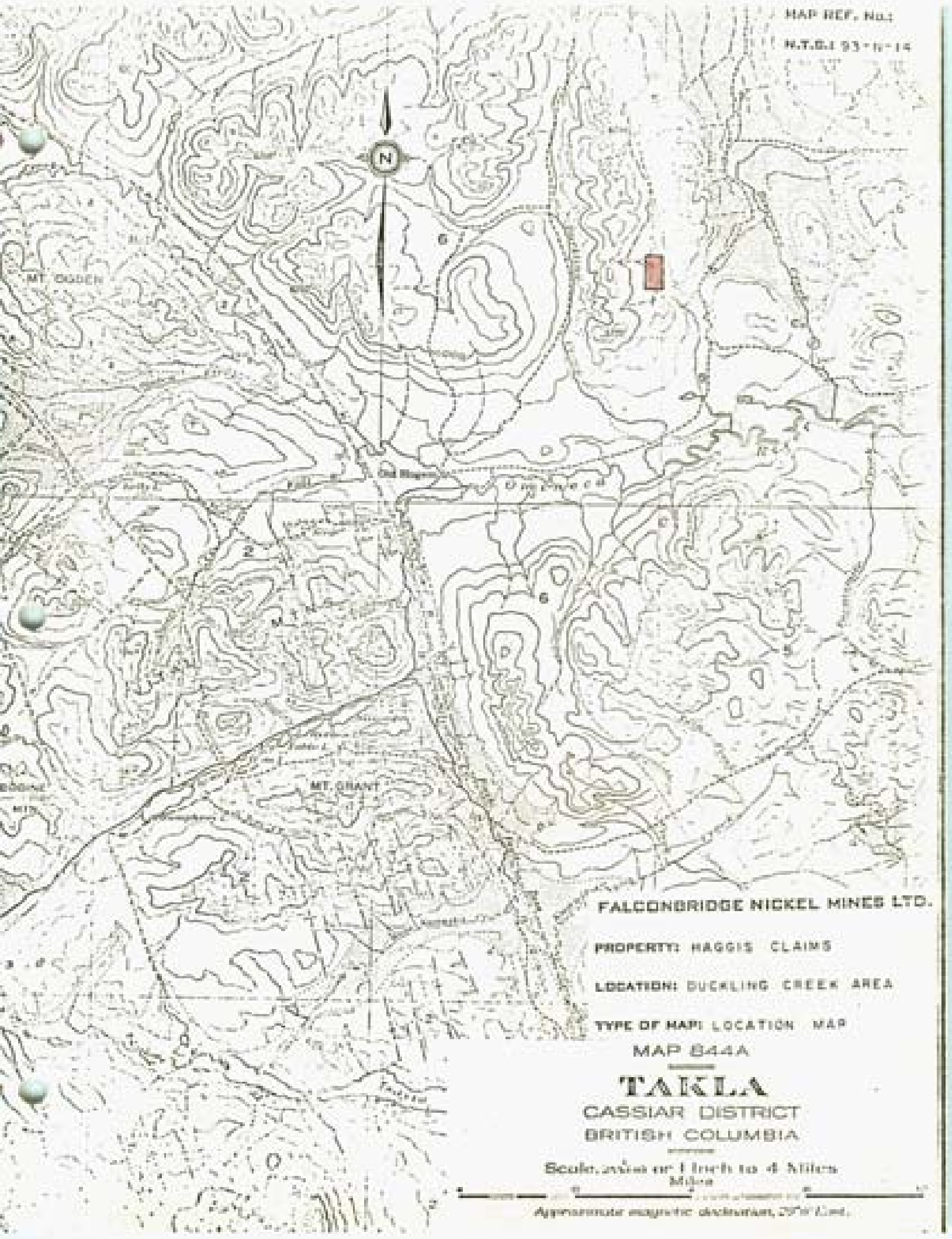
Lat. $55^{\circ}52'N$, Long. $125^{\circ}14'W$.

The Haggis group of claims is located 105 miles north of Fort St. James and 22 miles northwest of Germansen Landing. Elevations within the property range from 4,000 ft. to 5,000 ft. A gravel road from Fort St. James to Uslika Lake passes within one and a half miles to the east of the property. A privately built cat road passes through the centre of the property, along Roy Creek.

Vanderhoof, 41 miles south of Fort St. James is presently the closest station on the Canadian National Railway Line. A branch of the Pacific Great Eastern Railway, when completed, will pass approximately 40 miles south west of the property.

GEOLOGY

Only a few outcrops were located in the eastern part of the claim group. The remaining ground is covered by a thick layer of moraine



FALCONBRIDGE NICKEL MINES LTD.

PROPERTY: HAGGIS CLAIMS

LOCATION: DUCKLING CREEK AREA

TYPE OF MAP: LOCATION MAP
MAP 844A

TAKLA
CASSIAR DISTRICT
BRITISH COLUMBIA

Scale: 2 1/2 inches or 1 inch to 4 Miles
Miles



Approximate magnetic declination, 27° East.

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NO. 3140 MAP #1

material. The general geology as mapped by J. E. Armstrong, 1940-44, locates the contact of the Hogem Batholith with Takla volcanics more or less in the centre of the claim group. This location is supported by the two different rock types found in the talus on the east and west slopes of the valley. The intrusive rock types found include porphyritic syenites and fine grained syenites both typical for this part of the Hogem Batholith. Fine grained massive andesites of the Takla Group carry abundant disseminated pyrite. Isolated boulders carrying chalcopryrite and pyrite on fractures were found in the creek bed.

GEOCHEMISTRY

Sampling Procedure

Previous reconnaissance silt sampling in 1970 resulted in the establishment of a copper anomaly in Roy Creek and a western tributary.

Subsequently, a soil sample grid was laid out in June 1971 and samples were taken every 300 feet on NS lines 325 feet apart (see G. C. 1-70 map). Samples were taken from the B-horizon under a limited A-horizon of 2-4 inches thickness. The thickness of the overburden is assumed to vary from 1-2 ft. on the medium steep valley slopes to 50 and more feet in the valley bottom. The samples were collected with the use of grub hoes and then placed in water resistant paper packets on which the following information was recorded: sample number, date, location, sample depth, horizon, colour and moisture content. The samples were shipped to Vancouver for analysis by the Falconbridge Lab.

Laboratory Techniques

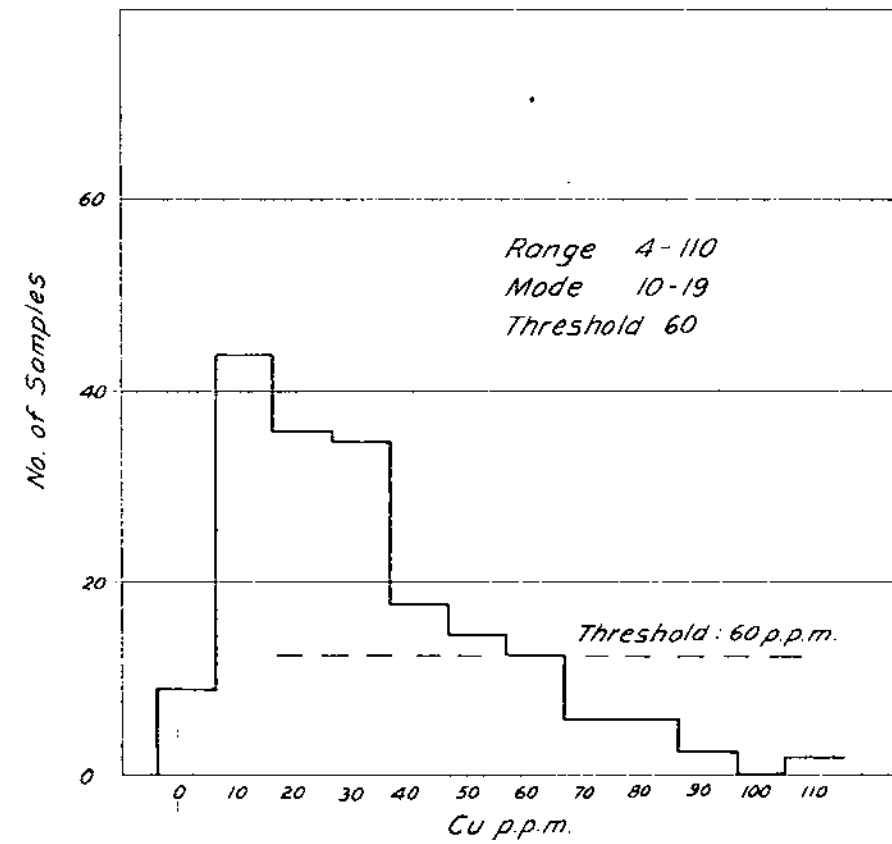
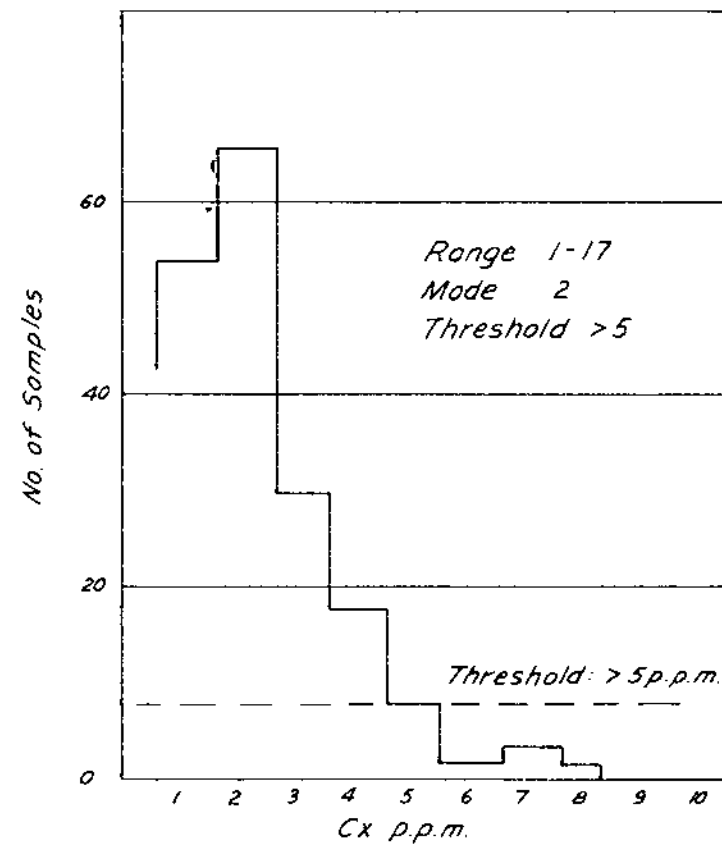
The sample were dried in a gas-fired hot air drier and hand screened through 80 mesh standard nylon screens.

The minus 80 mesh portion of the dried samples was analysed for

MAP REF. NO.: GC-2-71

N.T.S.: 93-N-14

HAGGIS GROUP
CONCENTRATION LEVELS
Cx-p.p.m., Cu.p.p.m.



D. H. Brown

Department of
Mines and Petroleum Resources
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NO. 3140 MAP #2

FALCONBRIDGE NICKEL MINES LTD.

PROPERTY: HAGGIS GROUP

LOCATION: Hagem Area, Omineca

TYPE OF MAP: CONCENTRATION LEVELS

BASED ON:

DATE OF WORK:

DATE: July 21, 1971

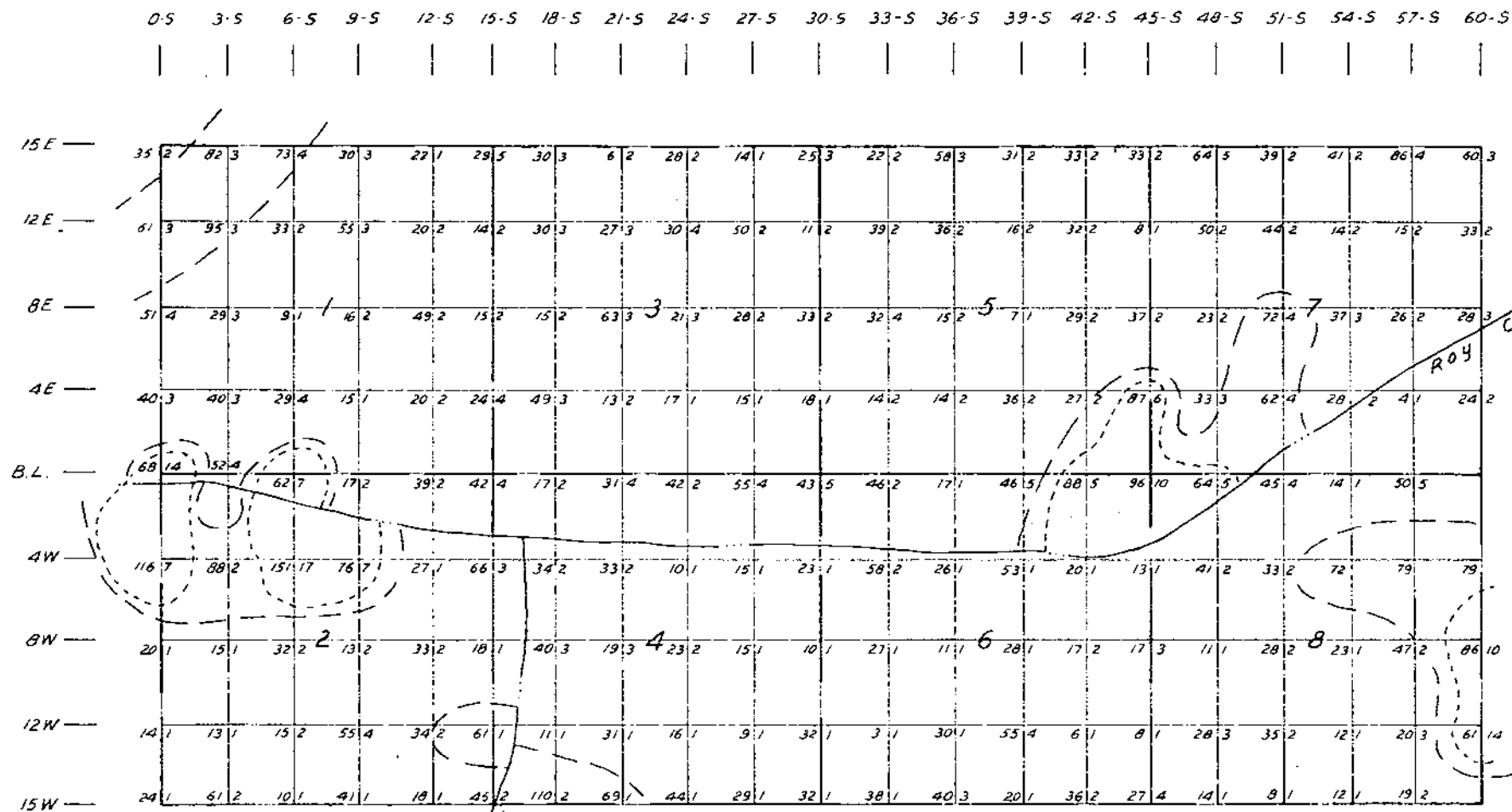
DRAWN BY: H.G.T.



SCALE: 1 INCH TO 100 FEET

MAP REF. No.: GC-1-71

N.T.S.: 93-N-14



LEGEND

- 58.3 → Hot Cu, Cold Cu
- Cu > 60 p.p.m.
- Cx Cu > 5 p.p.m.

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 NO. 3140 MAP #3

FALCONBRIDGE NICKEL MINES LTD.

PROPERTY: HAGGIS GROUP

LOCATION: Hagem Area, Omineca

TYPE OF MAP: GEOCHEM. FOR HOT & COLD EXTRACTABLE COPPER

BASED ON:

DATE OF WORK: June 6 & 9, 1971

DATE: July 16, 1971

DRAWN BY: H.G.T.

D.H. Brown



SCALE: 1 INCH TO 750'

cold and hot extractable copper by standard geochemical techniques.

Cold extractable copper was determined after shaking 1.0 gram of sample with 10 ml. of buffer solution for two minutes in a mechanical shaker. The buffer solution has a pH of 4.0 and consists of 100 gram of ammonium acetate dissolved in one litre of demineralized water. The copper content of the leach solution was determined by standard atomic absorption methods.

Hot extractable copper was determined by the atomic absorption method following digestion of 1 gram of the sample with boiling 10% nitric acid.

Interpretation

Concentration levels are:

	Range	Mode	Threshold
Hot extractable copper	4-110	10-119	60
Cold extractable copper	1-17	2	5

A few areas of higher copper values are indicated. Generally, there is a high Cx to total copper ratio in these areas suggesting the dominance of saline transported metal. The occurrence of two of the anomalies adjacent to the drainage channel of Roy Creek confirms this view. However, these anomalies do not entirely account for the high silt values obtained.

T. Gyr, Ph.D.
I. L. Elliott, Ph.D.

D. H. Brown
per D. H. Brown

Vancouver, B. C.

July 16, 1971

FALCONBRIDGE NICKEL MINES LIMITED

1112 WEST PENDER STREET

TELEPHONE: 682-6242

TELEX: 04-5938

VANCOUVER 1, B. C., CANADA

July 16, 1971

The Chief Mining Recorder
Omineca Mining Division
Smithers, B. C.

Dear Sir:

Re: Statement of Qualification

This is to certify that the geochemical work done on the Haggis Group of mineral claims and presented in this report was done under my supervision.

The geochemical field work was under the guidance of Dr. T. Gyr who received his Ph.D. from the Swiss Institute of Technology (E. T. A.) Zurich, Switzerland, and has been employed in exploration work with Falconbridge for two years. The geochemical sampling was overseen by A. H. Dawson, B.A.-Washington State University, who has supervised field geochemistry for Falconbridge for two years during which time he has become thoroughly conversant with geochemical techniques and procedures. Messrs. R. Samuelson, R. Bjerring and D. Bell are competent geochemical samplers trained by the Company geochemist in field techniques.

The analysis and evaluation of the results were done under the direction of Dr. I. L. Elliott, Chief Geochemist, who received his Doctorate from the Royal School of Mines, Imperial Collage, London, England.

I am a graduate in engineering geology from the University of British Columbia and a member of the Association of Professional Engineers of Ontario and British Columbia.

Yours very truly,

FALCONBRIDGE NICKEL MINES LIMITED



D. H. Brown, Prof. Eng.

DOMINION OF CANADA:

PROVINCE OF BRITISH COLUMBIA.

In the Matter of

To Wit:

I, David H. Brown

of 504 - 1112 W. Pender St., Vancouver 1,

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

A geochemical grid soil survey over the Haggis Group of mineral claims:

Haggis 1-8 (Incl.).

Grid Surveying and sampling

T. Gyr	Geologist	June 6, 9, 1971	2 da. @\$60.00	\$120.00
A. Dawson	Geologist	June 6, 1971	1 da. @\$45.00	45.00
R. Bjerring	Geochem. sampler	June 6, 9, 1971	2 da. @\$35.00	70.00
R. Samuelson	" "	June 6, 9, 1971	2 da. @\$35.00	70.00
D. Bell	" "	June 6, 9, 1971	2 da. @\$35.00	70.00
				\$375.00

Laboratory Costs

189 samples	Cold extractable Cu @\$1.00	\$189.00
189 samples	Hot extractable Cu @\$1.50	283.50
		\$847.50
Total		===== \$847.50

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 23 day of July 1971, A.D.

David H. Brown P. Eng

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

SUB-MINING RECORDER

In the Matter of

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.....
.....
.....

Statutory Declaration
(CANADA EVIDENCE ACT)
