

N.T.S. 93-I

**GEOCHEMICAL
REPORT**

ON

LAVA #21-30, #45-62,
#83-98 CLAIMS

54°00' - 54°40' N. -
126°00' - 127°20' W.

July 6 - Sept. 23, 1968

FALCONBRIDGE NICKEL
MINES LIMITED

Omineca
MINING DIVISION

D. H. Brown, P. Eng.

Van., B.C.
Dec. 17/68

1875

GEOCHEMICAL REPORT

ON

LAVA GROUP CLAIMS

1968

INTRODUCTION

Between July 6 and September 23, 1968 work necessary to complete a grid controlled geochemical soils survey was carried out on the Lava Group of claims in the eastern portion of the Telkwa Range. The soils grid surveys were suggested by extensive silts surveys in all the major drainage in the area. The source of the relatively high silts geochemical values was not apparent from the results of geological mapping and outcrop prospecting. The grids run for geophysical purposes on Table Mtn. and in Loring Creek were used for the geochemical soils surveys. The results of the two surveys are illustrated on appended map L-GC.1-68 and map L-GC.2-68 showing copper distribution and maps L-GC.3-68 and L-GC.4-68 showing molybdenum distribution.

LOCATION AND ACCESS

The geophysical soils surveys were carried out on Lava Group claims Nos. 45 to 62 (incl.), Nos. 83 to 98 (incl.) and Nos. 21 to 30 (incl.) which are located adjacent to and east of Loring Creek which is the most easterly tributary of Cabinet Creek in the eastern Telkwa Range. The centre of the claims lies approximately four miles south of the confluence of Cabinet and Goathorn Creeks. The claims are partly below and partly above timberline and range from 4000 feet to 6000 feet in elevation. Access is by helicopter.

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LIST OF ILLUSTRATIONS

Table Mtn. - Copper p.p.m.	-	Map L-GC.1-68	In Pocket
Loring Cr. - Copper p.p.m.	-	Map L-GC.2-68	" "
Table Mtn. - Molybdenum p.p.m.	-	Map L-GC.3-68	" "
Loring Cr. - Molybdenum p.p.m.	-	Map L-GC.4-68	" "

Department of	
Mines and Petroleum Resources	
ASSESSMENT REPORT	
NO. 1875	MAP

GEOCHEMICAL REPORT

ON

LAVA CLAIMS

OMINECA M.D.

54°32' N., 127°06' W.

N.T.S. 93-L

Vancouver, B.C.
December 17, 1968

D. H. Brown

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

In the Matter of GEOCHEMICAL REPORT ON LORING GROUP CLAIMS

I, David H. Brown
 of Vancouver, B.C.

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

Geochemical Assistants

D. Alex	July 6/68 - July 11/68	6 days @ \$30.00	\$ 180.00
J. Prince	July 6/68 - July 11/68	6 days @ \$30.00	180.00
H. Cote	July 13/68 - July 23/68	11 days @ \$28.50	313.50
T. Evans	July 13/68 - July 23/68	11 days @ \$30.00	330.00
D. Yank	July 13/68 - July 23/68	11 days @ \$26.25	288.75
G. Thomassen	August 19/68 - Sept. 23/68	36 days @ \$29.00	1,044.00

Geochemical Samplers

S. Zastavnikovich	Aug. 22/68 - Aug. 28/68	7 days @ \$26.75	187.25
R. Lamb	Aug. 22/68 - Aug. 28/68	7 days @ \$25.00	175.00
K. Pickering	Aug. 22/68 - Aug. 26/68	5 days @ \$22.50	112.50
E. Yarrow	Aug. 22/68 - Aug. 26/68	5 days @ \$22.50	112.50

Geophysical Supervisor

D. H. Brown	July 30/68 - Aug. 23/68	25 days @ \$45.00	1,125.00
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4,048.50
2,400.00

Laboratory Charges - 750 soil analyses @ \$3.20

Total expended for geochemical work on the Lava Group claims and to be applied to the following claims at the rate indicated:

\$6,448.50

Loring Group #1

2 years each Lava claims 16, 18, 20, 22, 24	\$1,000.00
1 year each Lava claims 12, 14, 47, 49	400.00

Loring Group #2

2 years each Lava claims 26, 28, 30, 51 - 62	3,000.00
1 year each Lava claims 9 - 11, 23, 25, 27, 29, 31, 32, 45, 48, 50, 63 - 67, 72, 120, 121	2,000.00

\$6,400.00

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 27th
 day of March 1969 A.D.

D.H. Brown

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

★o

Gold Commissionet.

In the Matter of

Statutory Declaration
(CANADA EVIDENCE ACT)

METHOD OF SURVEY

On Table Mountain grid 575 soil samples (B horizon where possible) were taken at 200 foot intervals along 400 foot spaced lines totalling over twenty miles in length. On the Loring Creek grid 175 B horizon soil samples were taken by spade at 200 foot intervals along 400 foot spaced lines.

All samples were placed in water resistant paper packets on which was marked the following information: line and sample number, date, depth, horizon, colour and moisture content. The 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 screens.

The minus 80 mesh portion of the dried sample was analyzed for copper and molybdenum by standard geophysical 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 1 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.

GEOLOGY

That part of the Lava Group of claims covered by the geochemical surveys discussed here is underlain by Hazelton Group volcanics and sediments of Upper Jurassic and Lower Cretaceous age. These consist of a thick sequence of rhyodacite flows, tuffs and pyroclastics, andesitic tuffs and

andesitic flows. The youngest member of the sequence consists of fossiliferous limestone beds which have yet to be dated. The above sequence is cut by post Hazelton dykes, sills and stocks of granodiorite, diorite, felsite and rhyolite quartz porphyry.

INTERPRETATION AND CONCLUSIONS

The area above timberline has largely been scoured by glaciation. Overburden in this area, then, is chiefly residual soil and broken rock fragments. Below timberline the soil is partly residual and partly transported. It is considered, then, that the geochemical anomalies represent mineralization within the rock formations underlying the anomalies. Copper values have been contoured using 40 p.p.m. as background and are illustrated on map L-GC.1-68. Copper values over 120 p.p.m. are considered strongly anomalous and range to 700 p.p.m. within the surveyed area. Molybdenum values have been contoured using 4 p.p.m. as background and are illustrated on map L-GC.2-68. Molybdenum values over 20 p.p.m. are considered strongly anomalous and range to 40 p.p.m. within the surveyed area. The geochemical anomalies coincide reasonably well with geophysical anomalies obtained indicating zones worthy of further detailed sampling and mapping. No definite conclusions can be drawn pending completion of more detailed exploration.



D. H. Brown

Vancouver, B.C.
December 17, 1968

FALCONBRIDGE NICKEL MINES LIMITED

1112 WEST PENDER STREET

VANCOUVER 1, B. C., CANADA

TELEPHONE: 682-6242

TELEX: 04-5938

December 17, 1968

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

Dear Sir:

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

Messrs. Zastavnikovich, Lamb, Pickering and Yarrow of Falconbridge Nickel Mines Limited are qualified geochemical samplers completely conversant with proper sampling techniques.

Other members of the Falconbridge staff listed on the Statement of Work are qualified as geochemical assistants.

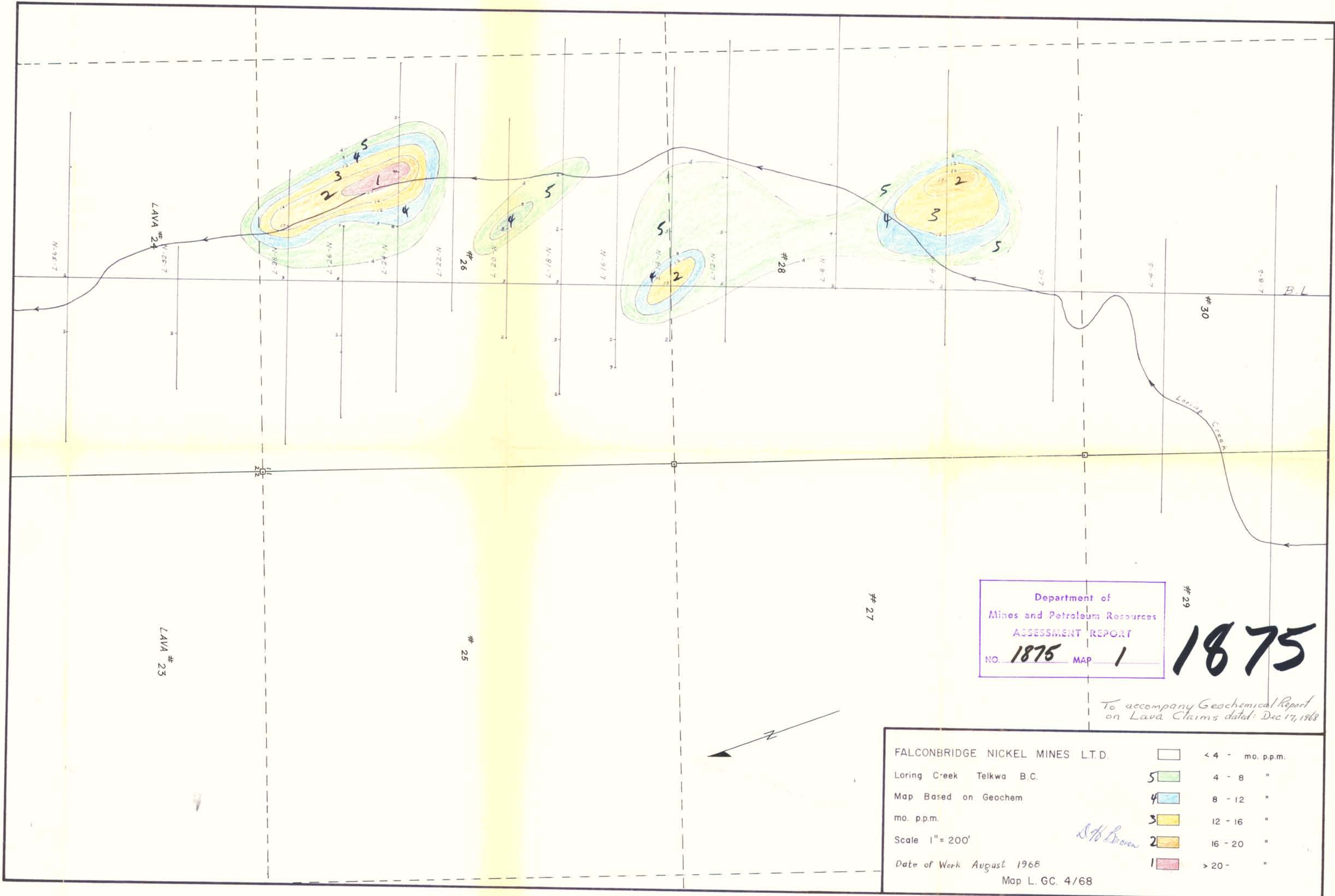
The analyses and evaluation of the results were done under the direction of Dr. I. L. Elliott, Chief Geochemist for Falconbridge Nickel Mines Limited. Dr. Elliott received his Doctorate from the Royal School of Mines, Imperial College, London, England.

Yours very truly,

FALCONBRIDGE NICKEL MINES LIMITED



D. H. Brown, P. Eng. (B.C.)



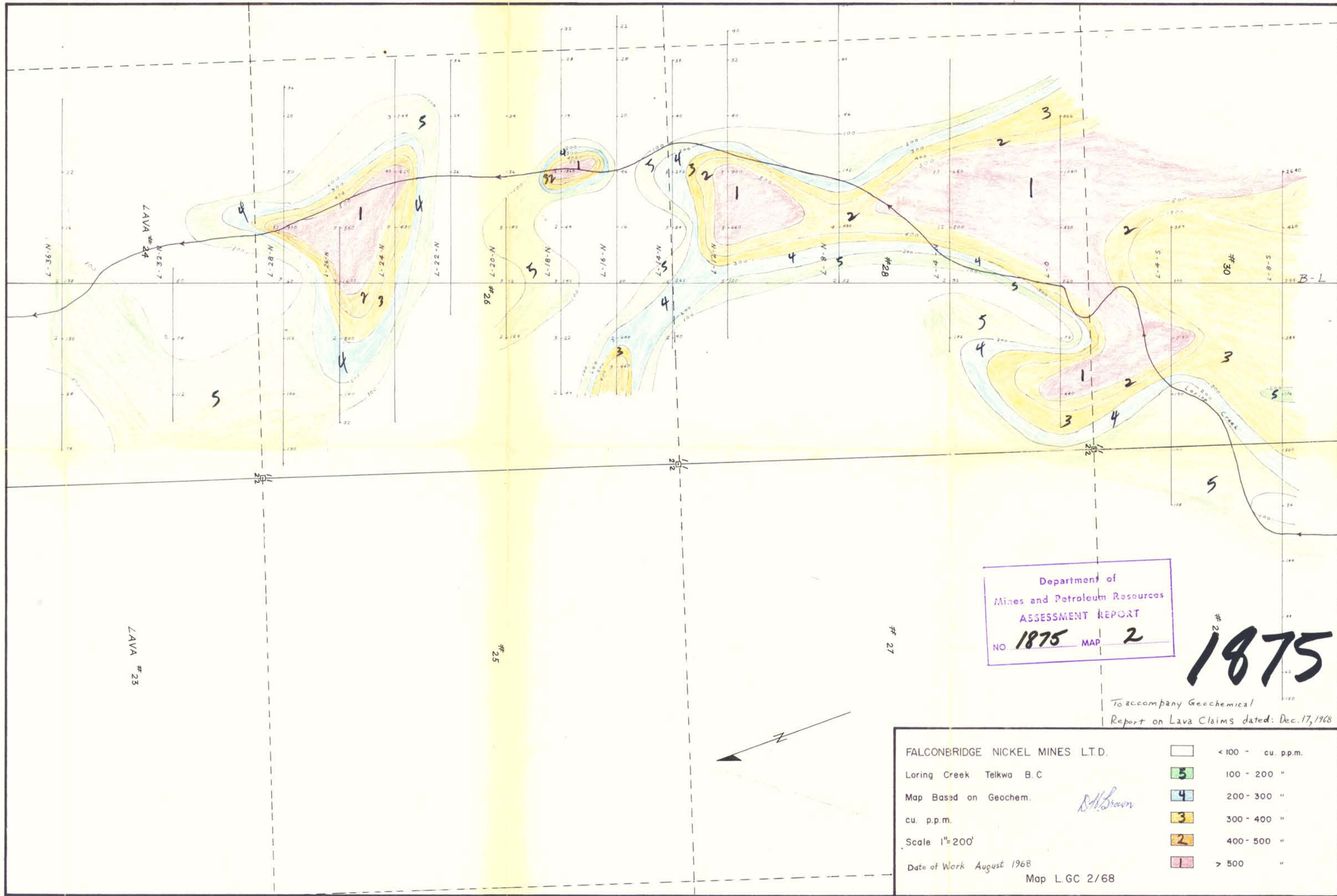
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 1875 MAP 1

#29
1875

To accompany Geochemical Report
on Lava Claims dated: Dec 17, 1968

FALCONBRIDGE NICKEL MINES L.T.D.		< 4 -	mo. p.p.m.
Loring Creek Telkwa B.C.		4 - 8	"
Map Based on Geochem		8 - 12	"
mo. p.p.m.		12 - 16	"
Scale 1" = 200'		16 - 20	"
Date of Work August 1968		> 20 -	"
Map L. GC. 4/68			

L.H. Brown



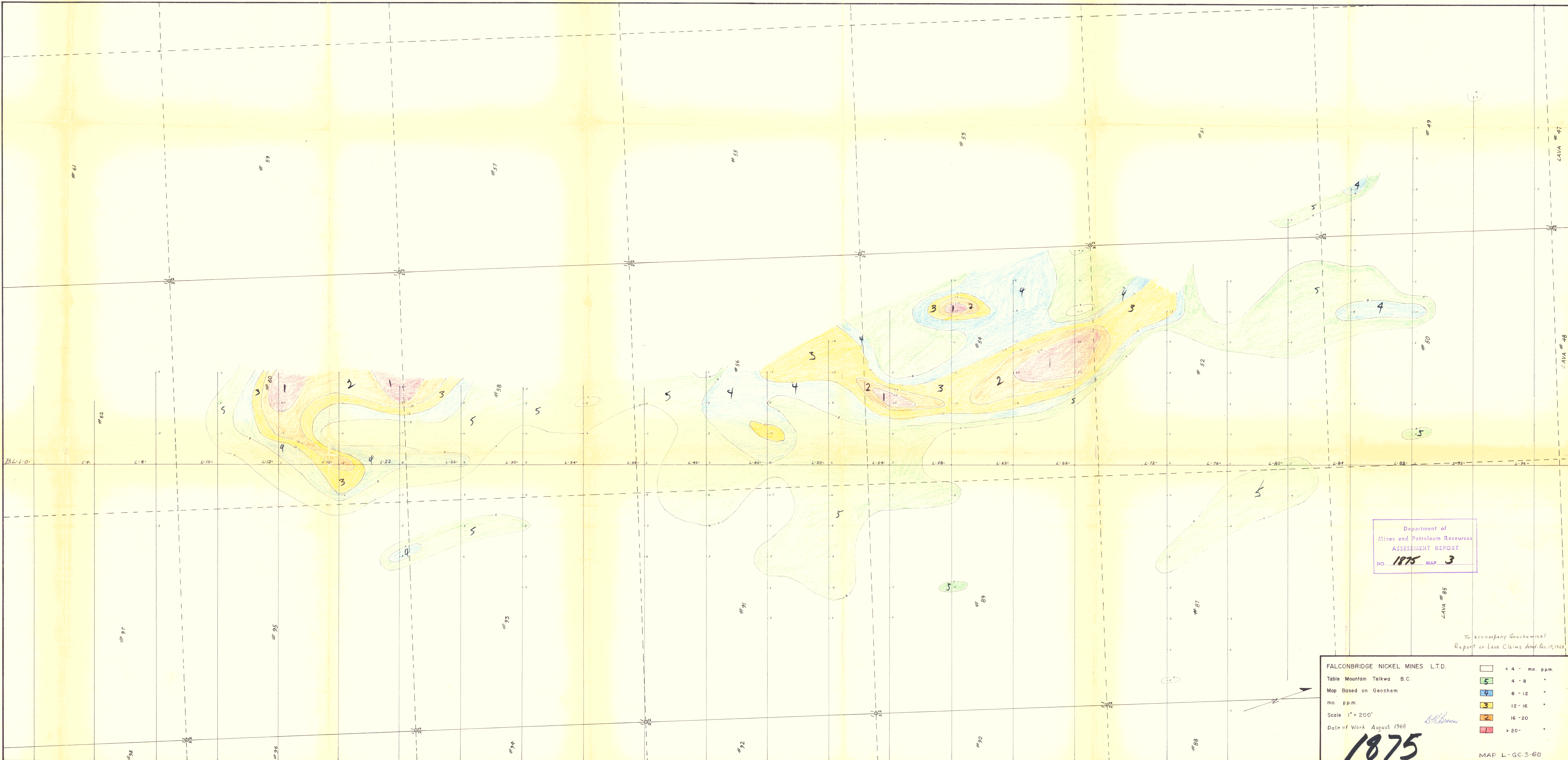
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO 1875 MAP 2

#2
1875

To accompany Geochemical
Report on Lava Claims dated: Dec. 17, 1968

FALCONBRIDGE NICKEL MINES LTD.		< 100 - cu. p.p.m.
Loring Creek Telkwa B.C.		5 100 - 200 "
Map Based on Geochem.		4 200 - 300 "
cu. p.p.m.		3 300 - 400 "
Scale 1" = 200'		2 400 - 500 "
Date of Work August 1968		1 > 500 "
Map L.G.C. 2/68		

D.W. Brown



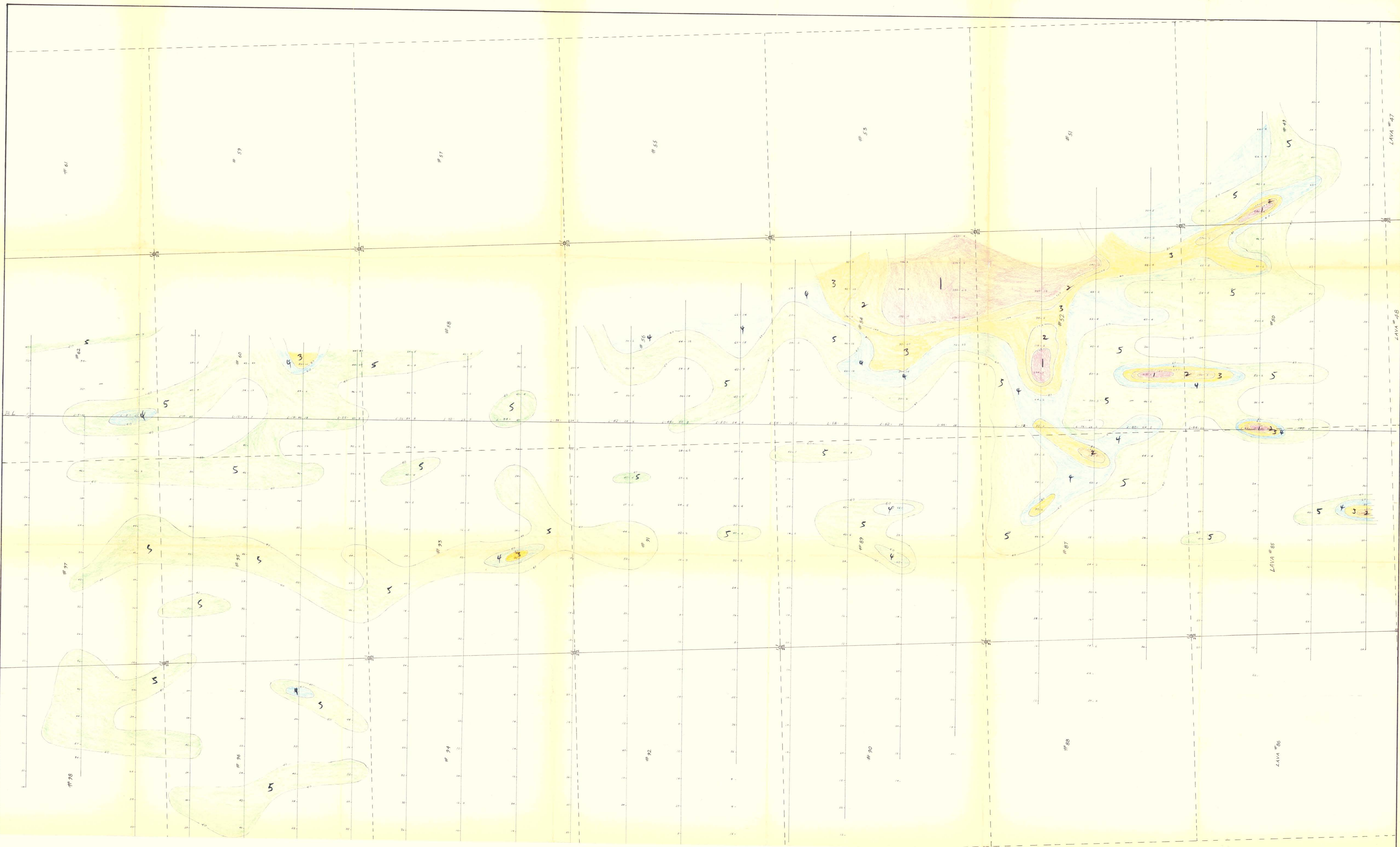
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 1875 MAP 3

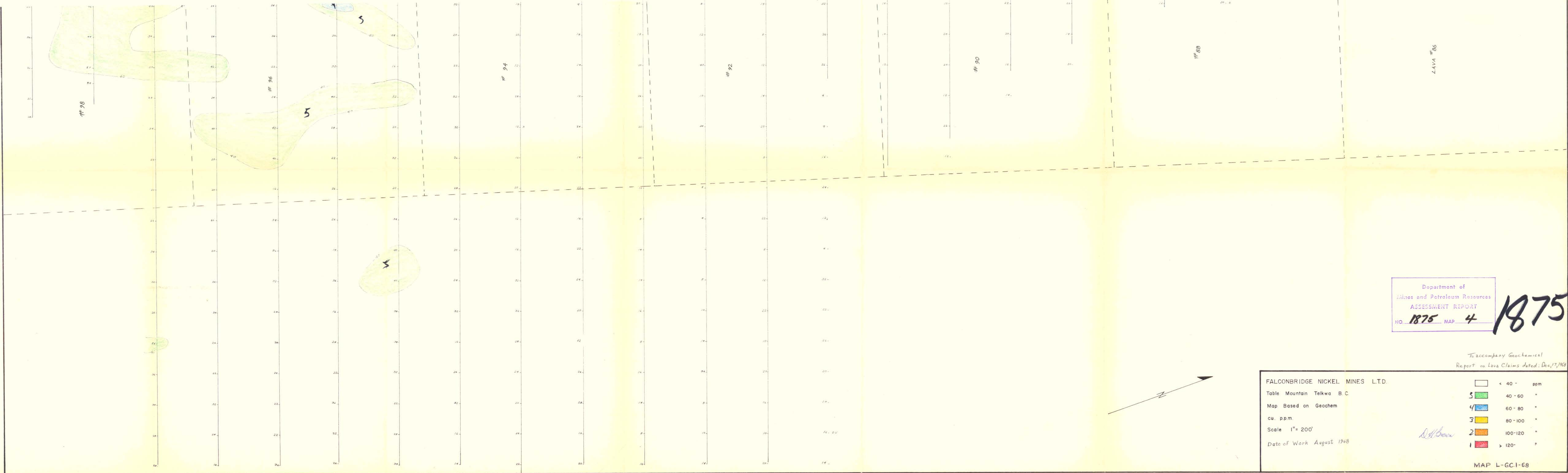
To accompany Geochemical
Report on Lava Claims dated Dec. 17, 1968

FALCONBRIDGE NICKEL MINES L.T.D.
Table Mountain Talkwa B.C.
Map Based on Geochem
mo. ppm.
Scale 1" = 200'
Date of Work August 1968

	< 4 - mo. ppm.
	4 - 8 "
	8 - 12 "
	12 - 16 "
	16 - 20 "
	> 20 - "

D.W. Brown
1875
MAP L-GC-3-68





Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 1875 MAP 4

1875

To accompany Geochemical
 Report on Lava Claims dated Dec. 17, 1968

FALCONBRIDGE NICKEL MINES LTD.	< 40 - ppm
Table Mountain Telkwa B.C.	40 - 60 "
Map Based on Geochem	60 - 80 "
cu. p.p.m.	80 - 100 "
Scale 1" = 200'	100 - 120 "
Date of Work August 1968	> 120 "

D.H. Brown

MAP L-GC.1-68