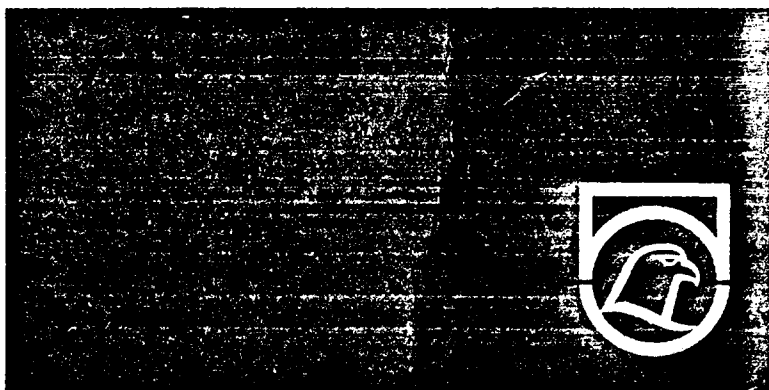
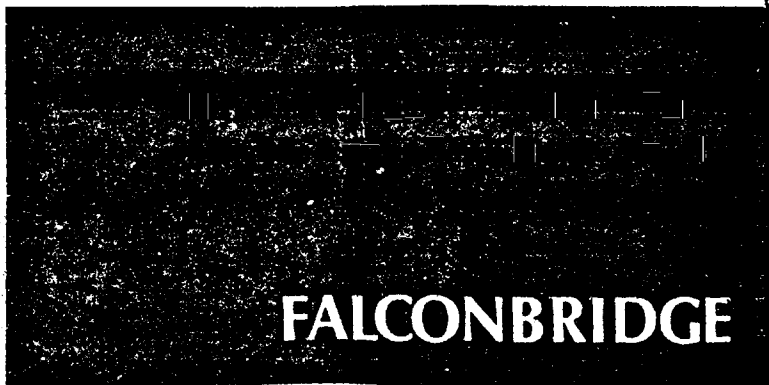


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FALCONBRIDGE METALLURGICAL LABORATORIES

Mineralogical Examination of a Sample of "Road
Bluff Breccia" from Moyie, B.C. (NTS 82-G-5)



FALCONBRIDGE NICKEL MINES LIMITED
METALLURGICAL LABORATORIES
THORNHILL, ONTARIO

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Mineralogical Examination of a Sample of "Road
Bluff Breccia" from Moyie, B.C. (NTS 82-G-5)

by
J.E. Muir


June 28, 1978

PROJECT NO.: JO#2452, 302

SAMPLE NO. : L#78-230

KEYWORDS : Metasediment

COPIES TO: HTB/PGT, RAB, AMC/JCC/SNC/WDH/GPM/WBGW, RB/Min. File,
B.D. Simmons/J.J. McDougall



FALCONBRIDGE METALLURGICAL LABORATORIES

MINERALOGICAL REPORT NO. 1084

TO: B.D. Simmons/J.J. McDougall PROJECT No. JO#2452-780628
(302)

FROM: J.E. Muir SAMPLE No. L#78-230

DATE: June 28, 1978

SUBJECT: Mineralogical Examination of a Sample of "Road Bluff Breccia" from Moyie, B.C. (NTS 82-G-5)

KEYWORDS: Metasediment

DISTRIBUTION: HTB/PGT, RAB, AMC/JCC/SNC/WDH/GPM/WBGW, RB/Min. File

DESCRIPTION OF SAMPLE: INFORMATION REQUESTED

A sample of "Road Bluff Breccia" was received on June 13th for examination. The specimen is reported to be representative of an unusual breccia zone within an otherwise uniform package of Proterozoic quartzites and argillites. Breccia zones are associated with the Sullivan deposit, which is hosted by these metasediments about 25 miles to the north. A partial analysis of this sample gave the following results:

Hg	20 ppb	Zn	440	ppm
Cu	530 ppm	Ag	0.2	ppm
Pb	110 ppm	Au	0.004	oz/ton

PROCEDURES: Spectrochem. Analysis Chemical Analysis X.R.D.

Optical Microscopy Electron Probe

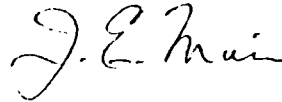
RESULTS:

A detailed petrographic description of a pol-thin section (PTS-5313), prepared from a portion of the sample, is given on the attached page. The sample is tentatively classified as a clastic metasediment and contains traces only of tourmaline. The lack of available detailed petrographic descriptions of the breccia zones at the Sullivan deposit prevents a direct comparison. However, Ethier and Campbell (1977) have, from a study of the compositions of tourmaline in the area of the Sullivan deposit, concluded that those tourmalines in

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June 28, 1978

in the altered zones of the Sullivan Mine are distinctly more magnesian than those in the Hellroaring Creek stock and barren Aldridge metasediments. If requested, the composition of the tourmaline in the "Road Bluff Breccia" sample can be determined by microprobe.



J.E. Muir

JEM/cat
Attach.

REFERENCE

Ethier, V.G. and Campbell, F.A. (1977): Tourmaline Concentrations in Proterozoic Sediments of the Southern Cordillera of Canada and Their Economic Significance. C.J.E.S., Vol. 14, No. 10, pp. 2348-2363.

Location Moyie, B.C.

Lab. No. 78-230

Sample Description "Road Bluff Breccia"

PTS No. 5313

MINERALS	Est. % by Vol.	Grain Size (m.m.)	
		Max.	Avg.
Quartz	70-75		
K Feldspar/Plagioclase	<5		
Sericite/Muscovite	10-15		
Biotite	3-4		
Chlorite	1-2		
Tourmaline	Tr		
Ilmenite/Sphene	<1		
Chalcopyrite	Tr		
Pyrite	Tr		
Zircon	Tr		

DESCRIPTION

Subrounded, equant quartz grains together with interstitial sericite, muscovite and biotite make up the majority of the rock. Subangular sericite-rich clasts (\pm chlorite), up to 3-4 mm, are sparsely scattered throughout the main mass. Acicular tourmaline crystals and ilmenite (\pm sphene) grains are weakly disseminated. Traces only of partly oxidized pyrite, chalcopyrite and zircon occur as well. A set of biotite-filled fractures transects the sample. There does not appear to be any obvious evidence of extensive re-crystallization of the sample.

CLASSIFICATION

Clastic metasediment