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PRELIMINARY

**REPORT**

ON

BARRIERE MOLYBDENITE  
PROSPECT

Barriere, B. C.

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Kamloops

MINING DIVISION

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BARRIERE MOLYBDENITE PROSPECT

BARRIERE, B. C.

INTRODUCTION:

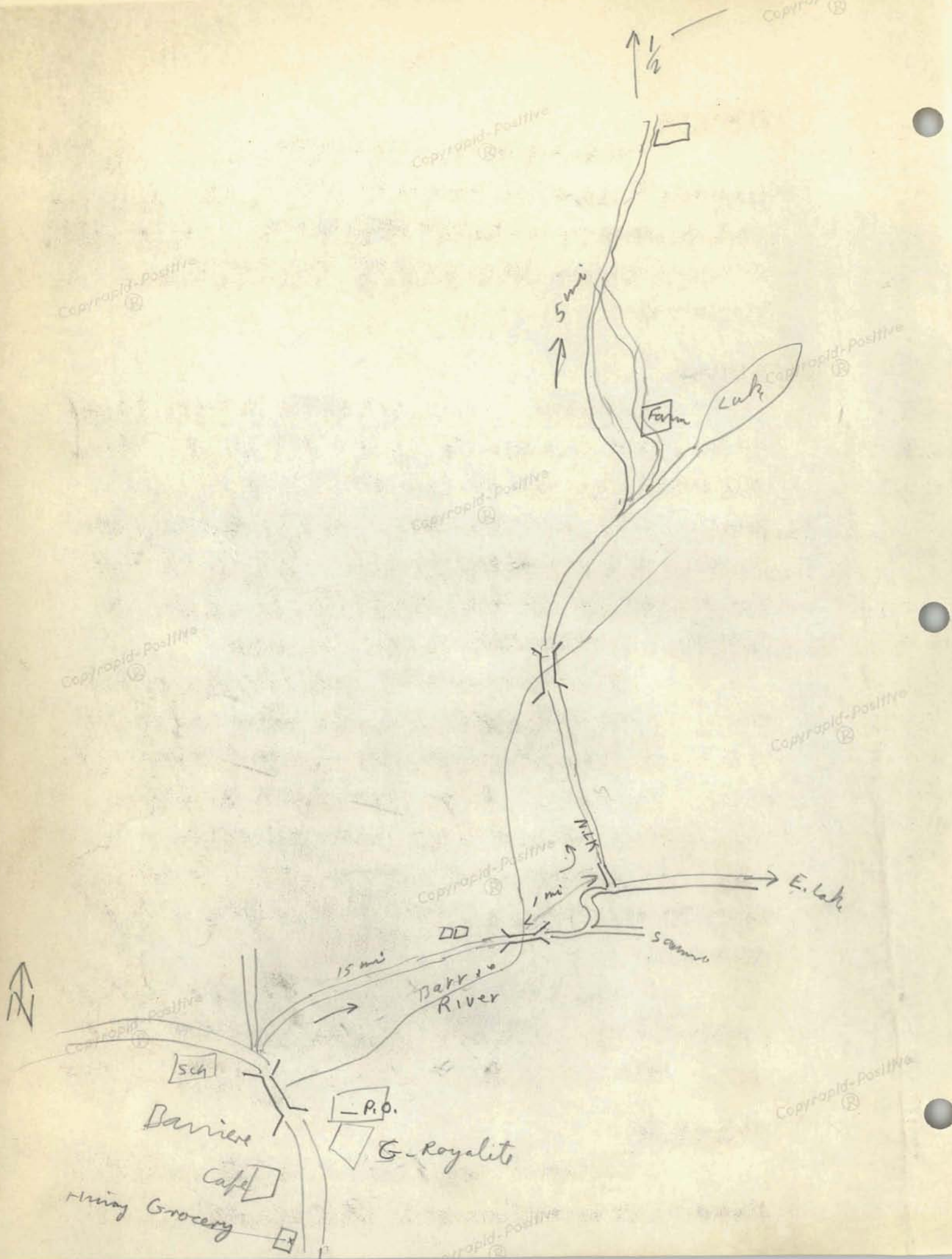
Molybdenite mineralization was discovered several years ago by Quebec Metallurgical Industries prospectors in the North Thompson River district of Central British Columbia, while searching for columbium. More recent interest in molybdenum has prompted a limited exploration program now in progress. Several easily accessible prospects have been staked and are now being tested. Pertinent assay results are not yet available, but surface indications point to a better-than-average prospect with large areas of favorable ground as yet unprospected.

LOCATION AND ACCESS:

The molybdenite deposits now being checked occur on the eastern slope of Harper Creek about five miles from its junction with Barriere River (See Map #1 enclosed). An unused logging road up Harper Creek connects with a 20 mile road to Barriere, a small settlement on #5 Highway and C.N.R. about 40 miles north of Kamloops.

The showings occur between elevations 3000 and 4500 feet over several square miles of burnt-over cedar forest on a steep hillside. Heavy snow may prevent access by road late in November.





PROPERTY:

Eight claims have been recorded to date by Q. M. I. prospectors, Hepler and Russell, to cover the more easily accessible showings, and another group of eight is being staked. Pyrochlore-bearing placer ground was previously explored near Barriere Lake.

GEOLOGY:

Molybdenite occurs as a common accessory mineral within a large, unmapped granite mass whose southern contact cuts across Adams Lake and North and South Barriere Lakes. Concentrations of interest occur in several (as yet) poorly defined hydrothermally altered zones of shearing and closely spaced jointing. As these weather more rapidly than the more massive country rock, exposures are poor.

Molybdenite, with its yellow oxidation product Molybdite, and small amounts of pyrite, occurs both as disseminations in the altered rock and minor massive concentrations in the shears. Surface weathering of the altered rock is severe and molybdenite in important amounts can seldom, if ever, be seen on the surface. Due to the small but important pyrite associate, the zone of weathering may be quite deep.

Molybdenite concentrations were originally discovered due to their distinctly higher-than-background radioactivity. This is believed due to a minor pyrochlore content.

DEVELOPMENT:

Development to date has been confined to limited prospecting of several accessible zones traceable on the sur-

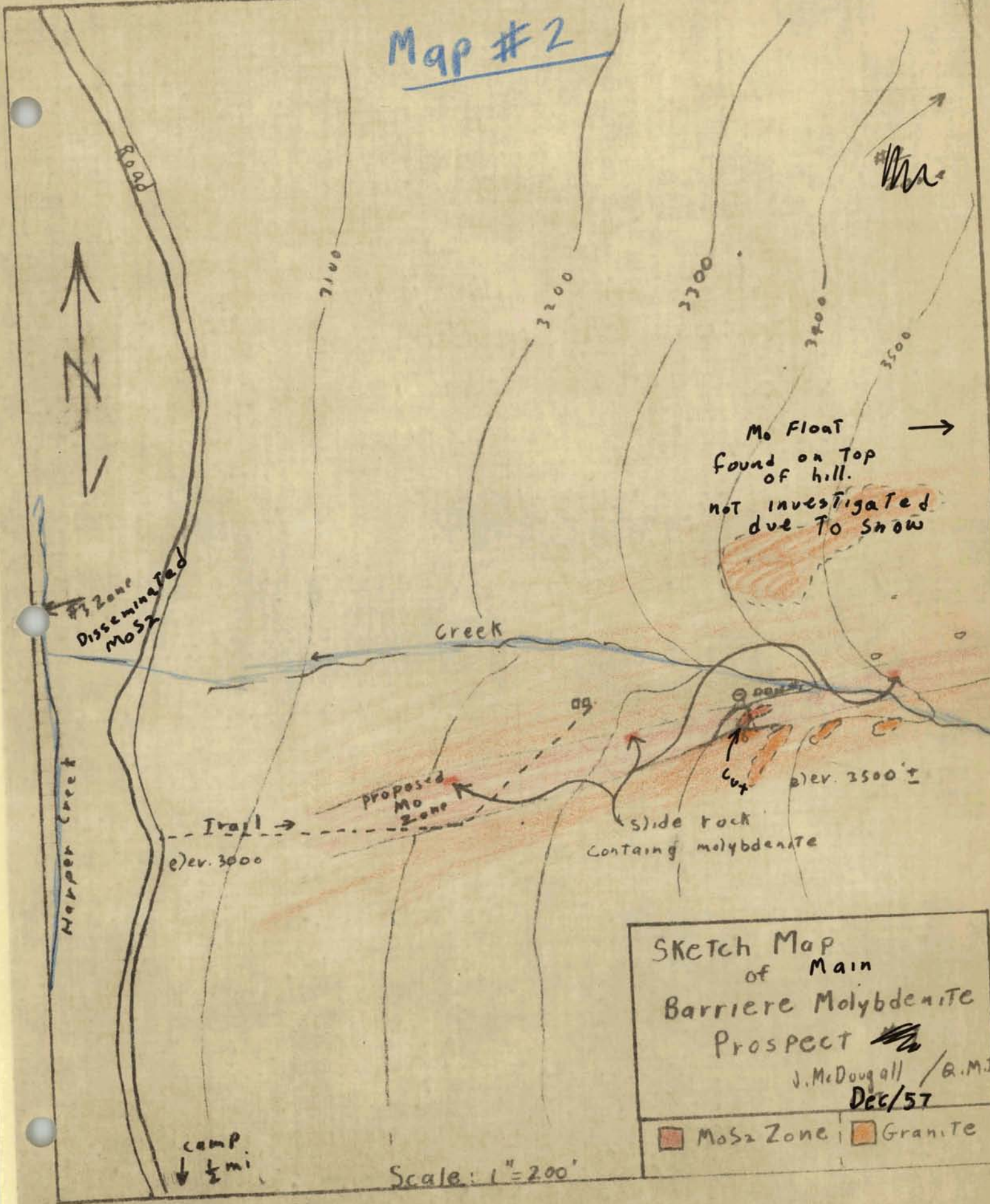
face for several thousand feet by a few boulders of highly leached rock containing traces of molybdenite. In one area relatively solid rock has been found within such a zone and work is being concentrated on it. Stripping has exposed about 25 feet of mineralization, and an attempt is being made to blast into unweathered material. A 75 foot pack-sack drill hole has been put in on this showing.

ASSAYS AND RESERVES:

Due to surface weathering, it is impossible at this time to give an assay grade. Six surface samples to date have all assayed between 0.35 and 4.0% Mo. Columbium values of 0.02% have been obtained on those samples checked for it. The shallow diamond drilling proved unsatisfactory with less than 10% core recovery in the mineralized shear sections. Sludge was kept but it is quite evident that the molybdenite, which usually tends to occur in cellular clusters, is ground up so fine that it floats off in the sludge pots and cannot be held without an intricate system of recovery. Assay results of sludge, taken from 40 feet of drilling, are not yet available, and it is doubtful if they will be representative.

The main zone exposed is about 25 feet wide and 100 feet long in an east-west direction (see Map #2). The dip appears vertical. Length extensions are completely obscured by overburden but large mineralized boulders indicate a possible 2000-3000 feet. The bounding granite contains large scattered molybdenite clusters but cannot be considered as being of economic interest.

# Map #2



Several such shear zones, any of which may contain better material than that being tested, are present.

OUTLOOK AND CONCLUSIONS:

If bulk sampling following present surface trenching in the weathered ore zone returns values in the order of 0.4% Mo, more detailed work should be arranged and a bulldozer should be employed to help explore the lightly overburdened extensions. Work could be carried out throughout the first part of the winter if the road was ploughed.

Exploration, hampered by snowfall at present, should be continued in the spring. It is doubtful if we could obtain a more favorable molybdenite prospecting area in B. C.

Vancouver, B. C.  
November 15th, 1957.

  
Jas. J. McDougall,  
Geologist.