# 861583

MEMO TO: File

DATE: January 12, 1982

FROM: G. S. W. Bruce

SUBJECT: Fire Mountain Property - J.J. Rankin and W. McDonald Atlin Mining Division, B.C., 103-N-10

#### BACKGROUND

J.J. Rankin contacted me before December 31, 1981, to find out if we would like to investigate a large group of claims containing two "showings" in the Atlin Mining Division.

On the large group of claims, the two showings are: the Fire Mountain molybdenum prospect on the southern part, and the Avalanche Creek showing on the northern part. This particular memorandum deals with the Fire claims.

On January 6, 1982, I visited Dick Woodcock's office in Vancouver at which time Woodcock gave me a quick description of the property and its merits.

On January 11, J.J. Rankin sent me copies of Woodcock's report on both the Fire Mountain prospect and the Avalanche Creek prospect.

### CONCLUSIONS

- 1. The work done by Woodcock in assessing this project and reporting on it is as usual excellent. Woodcock is Canada's acknowledged expert on the geology of molybdenum deposits.
- 2. There is a reasonable chance to discover underground molybdenite deposit which might grade between .1 and .2% MoS<sub>2</sub>.
- 3. The Fire Mountain property would require at the very least the drilling of one 3,000-foot hole which would probably cost in the order of \$200,000.
- 4. This is not an appropriate time to make such an expenditure for this purpose.

#### RECOMMENDATIONS

No further action.

#### OWNERSHIP

The claims covering both the Fire and Avalanche prospects are owned by Johns Manville and are under option to J.J. Rankin and Bill McDonald. Messrs. McDonald and Rankin have staked peripheral claims and claims connecting the two original Johns Manville groups.

## GEOLOGY & MINERALIZATION

In the past, Fire Mountain has been staked and explored many times since there is a brilliant gossan on the mountain.

The mountain is underlain largely by Cache Creek sedimentary rocks. There is a well-defined large zone of hornfels within the Cache Creek box on the mountain top. No intrusive stock is exposed but there are some minor dykes. Within the hornfelsed zone there is a 400-foot diameter breccia pipe.

As stated above there is a clearly defined large hornfelsed area and within this there is a pronounced bleached (formerly pyritic) zone and in turn within the latter there is a small breccia pipe. Geochemical sampling of felsenmeer defined an anomaly approximately 1,600' long by 1,200' wide which overall contains greater than 50 ppm Mo. There is a corresponding fluorine anomaly.

A considerable amount of drilling has been done by Johns Manville on this prospect. However, only two of the drill holes put down by Johns Manville were within the hornfelsed area and geochemical anomaly. Some unsplit sections of available Johns Manville core would probably run in the vicinity of .15% MoS<sub>2</sub>.

Woodcock postulates that the hornfelsed zone is underlain at unknown depth by a porphyry system which probably carries zones of molybdenite mineralization. He feels that the stock is at a depth of less than 3,000 feet.

As far as I am concerned, his reasoning seems to make sense and there probably is a mineral-bearing porphyry system at depth beneath the mountain. There is no particular reason though why it should be higher grade than molybdenum porphyry systems in the general area, i.e., in the order of .1 to .2% MoS<sub>2</sub>.