

BABINE RANGE WILDERNESS PARK PROPOSAL - A STUDY OF THE MINERAL
POTENTIAL - Preliminary Report

880369

by

the British Columbia Department of Mines and Petroleum Resources

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1. GENERAL DISCUSSION

As part of an integrated study of the Babine Range Wilderness Park Proposal the Department of Mines has been asked to undertake a study of the mineral potential of the area. Ideally, such a study should require several weeks in the field. Up to the present time, we have had only a very brief look at many of the existing showings. Much more field work will be required to present quantitative information. Nevertheless, with this in mind, a preliminary report is included herein.

Prospecting and mining has continued intermittently since the early 1900's in the Babine Range. It represents a geologically favourable area for exploration and development.

2. HISTORY

The first mineral prospects found in the Babine Range were made by the Babine Indians in the early 1900's. The first significant showing to be staked, the present Cronin Mine, was in 1907. Since then it has operated intermittently on a small scale basis. Most development work done on the other significant showings was done during the 1920's.

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3. MINERAL SHOWINGS

At least ten significant mineral showings, which have undergone development work, plus one operating mine exist with the proposed Babine Range Wilderness Park Proposal Area. In addition another half dozen of smaller mineral showings are scattered throughout the Range.

4. CLAIM STATUS

Mineral claims covering all of the previously known significant mineral showings within the study area, are still in good standing. Some of these claims are Crown Granted including the Cronin Mine area, the Driftwood Creek area and the Debenture Creek area.

5. ACCESS

Access to most mineral showings is by pre-existing mining roads. Except for the active showings, these mining roads are suitable for four wheel drive vehicles only. Due to the ruggedness of the terrain, the use of a helicopter would prove beneficial during some phases of exploration.

6. TYPES OF SHOWINGS

A. "High-Grade" base metal veins and/or replacement fissures.

All of the known showings within the study area could be broadly classified under this heading, except for one major prospect, the Big Onion. The nature of these showings is in general small tonnage with the exception of the one existing mine, the Cronin Mine, which has a significant tonnage. This type of prospect has been or would be mined by underground techniques.

B. "Porphyry Coppers"

A porphyry copper prospect is one which has a very large tonnage potential with a low grade of ore which may be mined by open pit methods. The concept of a porphyry copper is relatively new to exploration and thus has not truly been tested in the Babine Range.

Porphyry coppers are associated with a particular type of rock, usually granitic. There are several known "granitic" rocks within the study area. The only known prospect in the study area is the Big Onion which is located on the east flank of Astlais Mountain near the southeast end of the Park Proposal Area.

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7. METALS

The important metals found in the high grade types of prospects include: copper, silver, gold, lead, zinc, and cadmium.

Copper and molybdenum are found in the porphyry copper prospect.

All of these metals are of course in demand.

8. PAST PRODUCTION

The only significant production in the past has come from the Cronin Mine. No accurate production figures are available but an estimate might be around 150,000 tons total. The average milling rate under normal operating conditions might have been about 20 tons per day. Other prospects account for smaller tonnage shipments in the neighbourhood of 10 tons each total (i.e. hand cobbled high grade ore).

9. GEOLOGY

The geology of the Babine Range study area has never been mapped in any detail by the Department of Mines and Petroleum Resources. Mining companies have undoubtedly mapped the area at various scales. Probably the best map of the area will be available in the near future from the Geological Survey of Canada in Vancouver. Dr. H. Tipper spent the summers of 1970 and 1971 mapping the Babine Range and is presently in the process of writing a report which will include a map.

In general, the study area is underlain by a complex variety of marine sedimentary and volcanic rocks which have been intruded by younger bodies of granitic rock. The "high grade" vein type mineralization is associated with the volcanic processes; whereas the porphyry copper type mineralization is associated with the intrusion of granitic rocks.

10. MINERAL POTENTIAL

It is probable that most of the high grade vein type mineral prospects within the study area have been discovered. With the exception of the Cronin Mine area, these prospects will probably never amount to a large operation. The Cronin Mine, however, has the potential of being a larger operation than it has been up to the present time. The search for porphyry copper or large tonnage, low grade deposits within the study area is really in its infancy. The only prospect known to date, the Big Onion, is currently under active exploration. Exploration

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for other porphyry coppers within the Babine Range will undoubtedly continue for years to come.

11. CONFLICTS

1. Cronin Mine
2. Big Onion porphyry copper prospect - Astlais Mountain
3. Driftwood Creek showings - Rainbow and Harvey
4. Silver King - at the head of Driftwood Creek in Silver King Basin
5. Native Mines - at the head of Higgins Creek

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