

LINDQUIST LAKE (HARRISON, DEER HORN) GOLD-SILVER-(TUNGSTEN) PROSPECT
WHITESAIL LAKE AREA - OMINECA MINING DIVISION, B.C.

Summary and Conclusions

The Lindquist Lake gold-silver-(tungsten) property is situated in the northwest part of Tweedsmuir Provincial Park in west-central British Columbia. Proposals for exploration and development of this property will be considered by the Ministry of Energy Mines and Petroleum Resources after mid-March.

Two gold-silver zones on the property have a drill-indicated reserve of 188,950 tons with a weighted average grade of 0.338 oz/ton gold and 9.42 oz/ton silver.

Scheelite mineralization in talus has an average grade of 0.34% WO_3 and an indicated 21,000 tons per vertical ft. This zone has not been drilled.

Attractive features of the property include good gold-silver grades over 2.7 - 3 metre widths and the potential for increased tonnage in one of the two known zones.

While the property has some deficiencies as described herein, serious consideration should be given to preparing a proposal for this prospect. Such a proposal would be enhanced by including one of the long time interested parties.

Location and Access

The property is situated in west-central British Columbia at Latitude $53^{\circ}22'$ North and Longitude $127^{\circ}17'$ West in NTS map-area 93E/6.

The principal mineral showings are 5 km southwest of the west end of Whitesail Lake. An old tractor road links the property with Whitesail Lake. The nearest conventional road is that linking Houston with Tahtsa Reach, a distance of 130 km. This road terminates 35 km north of the Lindquist Lake property and the Tahtsa - Whitesail Lakes system, flooded for the Alcan Kemano project in the 1950's, forms an effective barrier to extending a road into the property without expensive bridge construction.

The previous means of access was by barge down Ootsa and Whitesail Lakes from Wistaria, a distance of 70 km.

Mineral Property

The property in 1967 consisted of 30 Crown granted mineral

claims and fractions owned by Deer Horn Mines of Toronto.

In 1974 the Provincial Government rescinded a policy which had allowed for staking and mineral exploration in Tweedsmuir and other Class B provincial parks. This new policy effectively "froze" assessment requirements on recorded claims but annual taxes were still due on Crown granted mineral claims. For some reason after 1967, Deer Horn Mines did not pay taxes and the claims reverted to the Crown.

The Provincial Government plans to invite proposals for the exploration and development of the Lindquist Lake property sometime after mid-March.

Previous Work

The discovery of scheelite mineralization on the property in 1943 led to the recognition of gold-silver bearing veins which were explored by Pioneer Gold Mines between 1944 and 1946. This work included extensive trenching and 3990 metres of diamond drilling.

The property was purchased by Deer Horn Mines in 1950 and work to the end of 1955 included 590 metres of underground drifting and raising, 1850 metres of surface and underground drilling and limited bulk sampling. A 10 km access road from the principal workings and Lindquist Lake to the west end of Whitesail Lake was also constructed.

The property was investigated for tungsten potential by a number of companies in the 1960's including Granby who carried out some trenching in 1967.

Geological Setting

The Lindquist Lake property is underlain by Cretaceous sediments and older quartz diorites marginal to the eastern contact of the Coast Plutonic Complex. Gold-bearing zones are developed within pre-Jurassic foliated quartz diorites just south of their thrust fault contact with the younger sediments.

Gold-Silver Zones

The Main Vein, hosted by foliated quartz diorite, has an east-west strike and a 20° - 45° north dip which apparently flattens with depth before joining the second, or Contact Zone structure. The quartz vein contains pyrite, pyrrhotite, sphalerite, galena, chalcopyrite, magnetite, scheelite and tellurides - free gold occurs in fractures in both the tellurides

and galena.

The vein has been traced by surface trenching over a strike length of 790 metres, of which 490 metres has been drilled and 300 metres has been determined to contain commercial values.

The vein is segmented by north trending faults - displacements are less than 30 metres. As such tonnage in the vein structure is contained in 6 blocks, some of which are contiguous.

These blocks range from 24 - 82 metres in length, 1.8 - 5.8 metres in width and extend to depths of 15 - 46 metres.

Widths average 3 metres and a tonnage and grade calculated by Franc Joubin in 1950 is:

88,950 tons - 0.260 oz/ton gold, 6.25 oz/ton silver

The Contact Zone is hosted by quartz veins and veinlets developed in quartz sericite schist 30 metres south of the sedimentary contact. This quartz sericite schist is an alteration of quartz diorite and probably represents the upper plate of the thrust fault.

The zone dips south at 55° - 65° and joins the Main Vein at depth. According to Buckles (1954) dimensions of the Contact Zone are 220 metres strike length, an average width of 2.7 metres and a drill-indicated depth of 53 metres. This indicates a tonnage of:

100,000 tons - 0.407 oz/ton gold, 12.25 oz/ton silver

The zone is open to depth and along strike to the west - it may be faulted off to the east.

Mineralogy of this zone is similar to the Main Vein.

Tungsten Zone

Two large talus areas 440 metres west of the gold-silver zones contain significant scheelite mineralization in quartz veinlets in both dioritic and volcanic rocks. Systematic sampling of the talus by Deer Horn indicated 21,000 tons per vertical ft. averaging 0.34% WO₃.

The source of this material is not known but it has been reported that a 40 metre trench to bedrock(?) in the central part of the largest talus area yielded samples having an average grade of 1.26% WO₃.

This is probably the area later trenched by Granby - results are not known. The tungsten zone has not been drilled.

Property Potential

Attractive features of the Lindquist Lake property are good gold-silver grades, particularly in the Contact Zone, over reasonably good widths. While the potential for developing additional tonnage in the Main Vein is apparently limited, the style and nature of the Contact Zone (silicified zone-quartz vein and veinlets in quartz sericite schist) has significant size implications.

The tungsten mineralization in talus represents another good target on the property.

Negatives include the mineability of the Main Vein because of its shallow dip and the fact that it is segmented by faults.

Access presents a potentially difficult problem. There may be plans to log south of Tahtsa Reach which would involve bridge construction - this should be checked out.

Finally, time-limited exploration (10 years) will be allowed with assessment of all resource values (including park values) at the end of this period. In other words, there may be no guarantees that permits would be granted in the event a commercial deposit was identified. On the other hand, it may be possible to mine a smaller deposit out within the 10 year time frame. I would expect the Government to provide some guarantees as part of the proposal system.

Proposal Format

Ministry of Energy Mines and Petroleum Resources will solicit proposals from interested parties after mid-March. My information suggests that a 100 km² area surrounding the known deposit will be made available and a performance bond may be required.

Proposals will be evaluated on the basis of the principals involved, their knowledge and background in the area, the nature and style of the proposed program and the level of funding to be committed.

Obviously, Equity would qualify as a serious contender if a decision were made to submit a proposal. Such a proposal might be enhanced by encouraging the participation of one of two groups who have expressed interest in the property for more than 10 years. These include Comaplex Resources of Calgary and Franc Joubin and Dennis Fairbairn of Toronto.

Joubin knows the property intimately and probably has access

to or knowledge of records of previous work inasmuch as he was personally involved in most of it. This information would be of great assistance in preparing a good proposal and the involvement of Joubin would make good "political" sense.

Should Equity decide to go it alone, the relatively accessible data base consists of the appended material. Additional information which may detail some of the previous drilling and underground work may exist in a 1957 M.Sc. thesis which is available in the Mines Library in Victoria. Comaplex put together some data in report 10 years ago - this is on confidential file in Victoria but may be available for viewing.

From information on hand it would appear that confirmatory and exploration drilling of the Contact Zone is required. Depending on the condition and extent of the workings, some of this might be done underground.

I would recommend a phased program with perhaps a commitment of \$500,000 for Phase I.

N.C. Carter
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