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Department of Natural Resources
DIVISION OF MINES & MINERALS
Box 1408
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R.C. Denny

SUMMARY REPORT OF TRIP TO KOSCIUSKO ISLAND

Introduction

On the morning of November 29th, W. A. Hawkins and the writer left Ketchikan by plane for Kosciusko Island. Purpose of the trip was to take supplies to Angus Lillie and to examine a molybdenum prospect near Shakan discovered by Mr. Lillie in partnership with Mr. Hawkins and Ken Eichner. After landing, we taxied into a small cove on PWI where Mr. Lillie, a fisherman, lived on his boat. From there, the prospect was reached by skiff and we put into the beach below the prospect at about 10:30 AM.

Location

The approximate coordinates of the area are a Latitude of 56° 09' and Longitude 133° 26'. Two molybdenite occurrences were examined; the first is located roughly 100 yards from the beach and 400 yards NE from the mouth of Sutter Creek. In reference to the old saltery at Shakan, it is approximately 1.3 miles in a northeasterly direction. The second showing is approximately one-half mile SE from the first and 200 - 300 yards east of Upper Sutter Lake.

Both prospects are covered with a mantle of muskeg and the area is heavily timbered. The elevation of the first is about 60 feet with a ground slope on the order of 20°. The second prospect is somewhat higher, being 300 - 400 feet above the beach. The ground slopes around 40° and, as might be expected, the mantle is thinner and rock exposures more common.

Examination

Several trenches have been dug by Mr. Lillie in the prospect first examined. The trenches expose bedrock and go no deeper and all lie within an area roughly 100 by 40 feet. These trenches are shallow pits and, at the most, expose 4-5 sq. ft. each. The molybdenite is found disseminated through the rock, which is a garnetiferous skarn lying between a limestone on the beach side and a quartz diorite intrusive inland.

Although the mineralization is mostly disseminated, one small pocket of ore was noted, indicating some type of local con-

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trol. In another trench, the molybdenite is richer in and along what appears to be a lens or seam of a granular Ca-Mg silicate rock; even so, the mineral in this green silicate comprises less than half of the molybdenite exposed in the cut.

A small stream cuts through the area and has exposed the mineralization. A pyrite stringer is exposed in one side of the streambank in the molybdenum-bearing area, but it does not show any molybdenite. No quartz veins have been found in the area.

The heavily mineralized zone lies close to the limestone-skarn contact. According to Hawkins, the diorite contact is roughly 150 yards upstream and although molybdenite is found upstream, it is exceedingly sparse. The skarn-diorite contact has not been located in any other place than the streambed so the true width of the skarn is not known.

The second prospect consisted of steeply-dipping, molybdenite-bearing quartz veins which lie in the quartz diorite. The mineralization occurs as flecks and blebs of molybdenite along fractures in the otherwise barren quartz and is very sparse. Three such veins were encountered while climbing the flank of the hill; the width of the largest is between two and three feet where it had been exposed by Mr. Lillie.

Conclusions and Summary

The vein occurrences, due to their nature of low grade mineralization and width, seem to merit little consideration in regard to further development. This conclusion is based partially on the distinct similarity of these veins to others which have proven to offer insufficient tonnage to be minable. In opposition to this, the nearness of the disseminated deposit poses a question of a genetic relationship and could possibly prove to be economically interesting after more is known.

The disseminated deposit is high-grade where exposed in the trenches and certainly warrants further development. This type of occurrence appears to be unusual in the area, or at least heretofore unknown. Mr. Lillie has recently found more molybdenite occurring on the other side of the hill to the east a short distance, which adds further encouragement.

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The owners have had several people on the property in attempting to promote it and have received good advice from them as regards to opening up the prospect. One party has arranged to spend two or three weeks on the ground next year to further prospect the deposit, special emphasis to be placed on determining the geological processes.

At present, the owners hope to outline the surface extent of the mineralization rather than stand the expense of going deeper with blasting into the portions already uncovered. Mr. Lillie is doing the work on the ground and is a hard worker. Trenching will be continued and also more prospecting in the general area. Geochemical means were discussed as a method of determining the surface extent and a sample of the Ca-Mg silicate rock was taken and sent to the Fairbanks DM&M for a spectroanalysis. The results showed copper present in an amount suitable for geochemical prospecting. It is hoped that this technique will prove workable, but this will be known only when it is applied on the ground.

The shortness of the daylight prevented anything beyond a hurried inspection of the exposures. It was necessary to leave the prospects at 2:00 PM in order to have flying visibility on the way back to Ketchikan. This was done and we arrived in Ketchikan shortly before 4:30 PM. All expenses incurred by the trip were borne by the owners.

No Assays?

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