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REPORT ON THE LINDA CLAIMS,
QUESNEL LAKE PROJECT,
Quesnel Lake, B.C. (52° 28' / 121° 30')

INTRODUCTION:

This report covers additional work completed on the Linda claims (formerly the Shiko Group) during May, 1970. Soil sampling and magnetometer work were done on Linda 2, 4, and 6 mineral claims west of the road. For additional information, the reader should refer to a report on the Shiko Group written by Fred Chow, 1968.

LOCATION:

The group consists of 16 located mineral claims situated one mile southwest of Mitchel Bay on Quesnel Lake. A gravel road extends to Mitchel Bay from 150 Mile House and a logging road runs through the property from the bay.

GEOLOGY: (Map 1)

The area is underlain mainly by pyroxene-bearing andesitic lavas, lithic tuffs and agglomerates. These have been intruded by a northerly elongated diorite intrusion. The diorite in turn has been intruded by a pink leucocratic syenite.

The diorite megascopically is a heterogeneous rock consisting of phases varying from a medium coloured diorite to a

very dark gabroic rock. Near the contacts with syenite, a transitional phase occurs which may be called a syenodiorite. This is a pinkish rock with a high percentage of mafic minerals. All phases of the diorite are strongly magnetic.

The main syenite mass occurs in the south part of the survey area. (Map 1). A smaller mass outcrops near the north end of the diorite and on Line 8W + 550N, a narrow syenite dyke cuts the diorite. Along the foot wall of the dyke but within the diorite, traces of chalcopyrite and malachite occur in association with pyrite. The occurrence is insignificant.

Volcanic rocks consist mainly of pyroxene-bearing andesite flows, lithic tuffs and agglomerates. In places the volcanic rocks are heavily pyritized and may contain an occasional grain of chalcopyrite.

None of the rocks are particularly altered. The intrusive rocks are fairly massive, fresh with little fracturing. East of station 8W ± 16N the diorite is altered over small areas to a green crumbly rock containing 8% to 12% biotite and scattered pink K-feldspar. Patches of alteration occur near areas of fresh diorite.

MAGCROMETER SURVEY: (Map 2)

Using the initial post of Linda 3 & 4 M.C.'s as a control point and the location line as Line 18W, seven north-south

lines were run with an ES-180 magcrometer. Readings were taken at 400-foot intervals. Results are shown on Map 2. Magcrometer lines run in May, 1968 were found to be displaced with relation to the claims from that shown on the Shiko map (1969). They were 800 feet further north and bearing about N28$^{o}$E rather than north as shown. Values from the previous survey could not be correlated with the present survey although the same instrument was used. The difference over the same station checked was 4700 gammas. I could find no explanation for this difference, consequently results from the earlier survey are left off the map accompanying this report.

One mag high stands out as a distinct anomaly. It occurs in the southeast corner of Linda #6 M.C. between Lines 12W and 4W. Rock here is a basic phase of the diorite carrying a high percentage of magnetite. The compass is strongly deflected in this region. No copper mineralization was seen although the mag high is coincident with a geochem (Cu) high.

The diorite has a higher magnetic background than either the syenite or adjacent volcanic rocks.

GEOCHEMISTRY: (Map 3)

Soil samples were taken in conjunction with and on the same grid as the magnetometer survey. Sampling conditions were generally good - in most places a "B" horizon was recognizable. In areas of logging slash, samples were taken off of the survey station

to the nearest point within a 50-foot radius where undisturbed soil could be obtained.

One small anomalous area with values up to 850 ppm Cu occurs between lines 8W and 6W from 14N to 20N. The anomaly is coincident with both a magnetic and topographic high.

Using a 3-times background formula for determining anomalous Cu Values, the following was obtained:

Background - 50 ppm

Anomalous- 150 ppm and greater

Distinctly anomalous - > 200 ppm

The 150 ppm and greater outlines an area 800' long by a maximum width of 400 feet. Average width is about 300 feet.

Soil sampling shows only one small anomaly and scattered isolated highs. None of these justify additional work.

RECOMMENDATIONS:

In view of the lack of alteration in rocks observed and the limited nature of the geochem anomaly, I recommend we drop the Linda claims near Quesnel Lake.

John C. Lund,
P. Eng.

May 19, 1970

JCL/lk