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MONTHLY REPORT

May 1, to June 15, 1966

CARIBOO GEOCHEMISTRY

In late April, we set up a base camp on the west end of Horsefly Lake in the Cariboo area. Geochemical reconnaissance work started in May and at present there are six 2-men teams at work using jeeps and boats for transportation. One of these crews, headed by a prospector will be moved to the Alice Arm—Stewart area in late June to help check geochemical anomalies.

One small copper anomaly just south of Murphy Lake led us to an area of coarse-grained hornblende—biotite syenite that has scattered specks of chalcopyrite. These scattered specks of chalcopyrite occur over an area about 1000 feet by 1500 feet and in one outcrop both chalcopyrite and bornite occur in interesting amounts. This outcrop is of limited extent and not of economic size. The mineralized area is bounded on the west and on the east by outcrops of barren syenite and on the north by a drift covered area which separates the area of syenite exposures from an area of Tertiary lava about a mile further north. About thirty claims have been staked and some soil sampling is in progress in the northern area of overburden.

There is considerable exploration activity in the Cariboo area. The most active participants are Anaconda Company and Helcon Explorations Ltd., each with a helicopter and numerous jeeps; Noranda, Mastedon—Highland Belle and numerous other companies are also active in the Cariboo this year.

YUKON WORK

Big Creek area;

We plan some follow-up work on a few anomalies in the Big Creek area and some additional geochemical and surface work on the anomalous stock south of Big Creek. In a recent publication, A. E. Aho pointed out that the intersection of the Big Creek structure and the porphyry stocks west of Carmacks was a good locus for gold—silver mineralization. Because of this publication, we decided to acquire some ground immediately rather than wait until we are ready to do the work in late summer. We have staked 48 claims (Klazan Group) and plan to work on them in late summer.

Cub Creek:

It is the consensus of opinion of geophysicists that I have

talked to that a Turam survey would be much more suitable for the Cub Creek area than would an I.P. survey. Boshard, who works with Dr. Harry Segal, has improved the Turam equipment and uses a large ground loop rather than the long wire grounded at both ends. He now claims to be able to differentiate between the conductive overburden and genuine conductors. The work done by Hunting Survey Corp. Ltd. in the Cub Creek area indicated a zone of discontinuous conductors which they interpreted as genuine conductors rather than overburden effects. However, their technique employed the long grounded wire. Our Turam survey, utilizing the ground loop method will cover Hunting's anomalous zone and also the suggested sulphide that lies southeast of the area of sulphide float. Mr. Colin Campbell, assisted by two students is laying out a grid in the area and we plan to do the Turam survey in early July.

PROPERTY EXAMINATIONS

We have examined four mineral properties in the Cariboo area, two of these are held by companies and two are held by prospectors who wish to sell. Individual reports of these properties will be available next winter. Summary descriptions are as follows:

- Helcon Explorations Ltd. found a copper property at HenIngram Lake between Quesnel and Horsefly lakes in 1964. They
 did geophysical work, bulldozer stripping, and some diamond
 drilling on the property over a period of two years; but the
 results were disappointing. On this property, basic coarsegrained dikes intrude argillites and chert. Chalcopyrite
 and pyrrhotite mineralization occur in the basic dikes and
 in small fractures in the intruded cherts. In addition,
 pyrite mineralization occurs throughout a large area of
 the argillites and may or may not be related to the dikes.
 The mineralized cherts appear to be gently dipping and it
 is reported that the mineralization did not extend to depth.
 Assay of a relatively rich chert specimen yielded 1.41%
 copper, 0.06 ozs. gold, and 0.01% nickel.
- (2)Gibraltar Mines Ltd. have been drilling a copper property in the MacLeese Lake area north of Williams Lake and they have recently turned this property over to Cominco for additional exploration. I spent a few hours on the property, examined some core and discussed the geology with the Gibraltar Mines geologist. The chalcopyrite mineralization occurs in granodiorite which intrudes Cache Creek sediments and Mesozoic volcanics. The granodiorite massif has gently dipping foliation throughout. The mineralization occurs in chloritized and sericitized zones that are parallel to the foliation. Mineralization consists of pyrite and chalcopyrite; in places the pyrite is abundant enough to form massive sulphide lenses. The biggest problem on the property is continuity between holes. The relatively high grade (about 0.5% copper) intersections do not all occur at the same horizon. Either there is displacement by vertical faulting,

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there is some displacement due to drag folds within the foliated rock or the zones are lenses that are discontinuous and occur at several "stratigraphic horizons".

- The Sands Creek molybdenite prospect two miles north of the village of Clearwater, British Columbia, belongs to Mr. Clarence Fuller and associates, prospectors of Quesnel, British Columbia. The molybdenite occurs as disseminated rosettes within quartz lenses that vary from two inches to two feet in width. The quartz lenses are fairly numerous and a grab sample from one of these assayed 0.2% MoS2. Whether or not additional molybdenite occurs within the highly sheared and weathered granite is not known. The quartz lenses occur in a sheared and sericitized or greisenized granite and appear to be spacially associated with a pendant of hornfels. The mineralization is not the typical stockwork type and Mr. Clarence Fuller was told that our Company would not be interested in the property.
- (4) A group of mineral claims (Andy No. 1 to Andy No. 20 inclusive) belonging to Mr. Andy Ritz, Mr. Lawrence Kiep, and Mr. Lloyd Boyko, prospectors from Likely, British Columbia, cover a monzonite stock along the north bank of the Quesnel River about six miles north of the Cariboo Bell property. Mr. R. H. Janes and I visited this property on June 12th to look at the copper mineralization which the prospectors had found. The stock intrudes Mesozoic volcanics. There is very sparse copper mineralization and very limited alteration. The copper mineralization occurs in quartz stringers; alteration that was present consisted of a few orthoclase veinlets within the monzonite. Two conspicuous rusty zones, one on either side of the stock, are formed from pyrite which occurs in relatively acidic volcanic rock. The prospectors were told that our Company is not interested in the property.

R. Woodcock

June 15th, 1966