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Property of
GEOLOGY. DEPT.

BOULDER MOUNTAIN PROPERTY OF
GOLD RIVER MINES
TULAMEEN RIVER AREA, B.C.
N.T.S. 92-H-10W

Van., B.C.
Dec. 5/73

S.H. Pilcher

GOLD RIVER MINES - BOULDER Mtn PROPERTY
Tulameen River Area,
Report by: S.H. Pilcher, December 5, 1973.

92-H-10
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TULAMEEN RIVER AREA, B.C.

N.T.S. 92-H-10W

This property was brought to the attention of Falconbridge through Mr. J. Chiavarina, President of Gold River, who first contacted Mr. G. Walker in Toronto.

The writer spent November 29th on the property in the company of Mr. T. R. Tough, a consultant in the employ of Gold River Mines. At the time of examination the area was covered by ten inches of snow and only the trench walls were visible.

The property consists of 42 contiguous claims and four mineral leases located $4\frac{1}{2}$ miles NNW of Tulameen. These cover an area of Nicola volcanic rocks flanked on the east by a small stock of Coast Intrusion. The Eagle Granodiorite lies about five miles to the west.

The easternmost claims cover the old Cousin Jack Group on which all the earlier work was concentrated. The showings here consist of a series of irregular northwest-striking quartz veins carrying small amounts of galena, sphalerite, chalcopyrite, and pyrite. The overall values in these veins are too low to be of interest.

It was later found that several old unreported copper showings occur several thousand feet west of the lead-zinc mineralization, and it is in this area that the present activity is centered.

The three known showings lie along a N-S line and are spaced about 5,000 feet apart. Gold River has to date completed a geochemical soil survey and are in the final stages of an I.P. and E.M. survey.

At the southernmost showing pyrite and chalcopyrite in lenses, clots, and disseminations occur within a highly deformed porphyritic volcanic rock. A few irregular seams and clots of quartz are associated with the mineralization. The rock exhibits a strong foliation which may be either primary flow structure or shear planes. In places the rock is very schistose. This planar structure strikes NNW and dips $15-20^{\circ}$ to the SW. The mineralization appears to be controlled by this structure though according to Mr. Tough geophysical data suggests a 70° dip to the SW. A narrow seam of chalcopyrite west of the showing was observed to be nearly horizontal in attitude.

The mineralized zone is exposed for approximately 220 feet along strike. Total length and width are not known. Chip samples from an old adit near the center of the showing are said to assay 6% copper over four feet. One flat hole (24°) diamond drilled on a southwesterly bearing at the north end of the showing assayed 1.47% copper over 110 feet.

The mineralization exposed here has very little geochemical expression.

The I.P. results indicate the main showing to be outlined by a two millisecond chargeability value which forms an oblong measuring approximately 200 X 400 feet. Inside this are small circular contours of 4, 6, and 8 milliseconds. These are all enclosed by 1 millisecond contours outlining a zone measuring 400 X 4000 feet and trending NNW.

To the east of this area, about 800 feet, is another weak I.P. anomaly trending slightly west of north. This anomaly, outlined by a two

millisecond chargeability value, measures 400 X 2000 feet. No known mineralization has been found in this area but the anomaly does correlate roughly with a weak geochemical anomaly.

On the middle showing mineralization is of the same type and appears to be confined to a particular horizon. The rock here is also a highly deformed porphyritic volcanic but here there are also some siliceous bands intermixed with some of the sulphides. The main foliation strikes N 10° W and dips 40° SW. The mineralized zone is exposed over a strike length of 300 feet. The thickness and total extent are not known. Two chip samples taken here are reported to assay as follows: 13.8 feet of 1.32% and 6 feet of 0.8%. A highly siliceous rock, possibly an altered rhyolite, overlies the mineralized zone here.

This showing also has a very small geochemical expression. I.P. results indicate the showing to be within a broad north-trending zone of very low chargeability (1 millisecond).

The north showing was mostly covered with snow at the time of examination. It is said to trend N 55° E. Some high grade chalcopyrite float was observed by the writer here.

The geochemical expression is here again very small. I.P. work has not been done in this area as yet.

Conclusions

This copper mineralization is not of the porphyry type in that it forms linear zones and appears to be confined to certain volcanic horizons. However, as mentioned previously, this relationship may be only apparent and the major control could be shear zones. A thorough study of the area would

be required to determine which is the case.

It is impossible to say at this time the possible extent and thickness of these mineralized zones. Based on the weak I.P. response it would appear that the better mineralization is very limited in extent. Irregardless of the I.P. results the property definitely warrants drilling. If the mineralization is as restricted as the I.P. indicates this fact can be quickly determined by drilling. ||

The property also has other possibilities. The intrusive along the eastern claims is barren where exposed but there are considerable covered areas which, because of the presence of copper in the surrounding volcanic rocks, could contain porphyry type mineralization. Also, a fairly large copper geochemical anomaly is present to the west of the lead-zinc showings but east of the known copper showings. This could indicate a mineral zonation related to an as yet unknown intrusive center. ||

Gold River is planning to drill this property after the first of the year, at which time the geophysics will be completed. They have the money to do this work and their interest in major participation is possibly for strictly promotional purposes. They will not indicate what type of deal they are interested in but they would like Falconbridge to make an offer.

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