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MINERAL CLAIMS IN COPPER BASIN
BRADSHAW MOUNTAINS
YAVAPAI COUNTY, ARIZONA

Introduction

At the request of Mr. Howard Gable, the writer made a preliminary field inspection of mineral claims in Copper Basin, situated in the Bradshaw Mountains, Yavapai County, Arizona.

The field inspection was made on June 6, 1966 in accompaniment with Mr. Gable and Mr. Kelsey Boltz, mining engineer.

Location & Accessibility

More specifically, the claims are located in Township 9 North, Range 1 West, 6 & SRPM, Yavapai County, Arizona.

The area is accessible via good graded roads from the Black Canyon Highway to Crown King, a distance of about 20 miles. From Crown King to Copper Basin, about 8 to 10 miles, the road is passable to 4-wheel drive vehicles. This road could be made passable to medium sized ore trucks with a limited amount of grading.

As discussed, if a mill is put into operation, a new road could be built from the Lake Pleasant area about 6 to 8 miles to the south.

Geology

Copper Basin is a large valley consisting of igneous and metamorphic rocks described in general as the "Crooks Complex"

More specifically, the rocks in the basin consist of schist, granite, quartz monzonite and associated rocks.

The primary ore body is a mineralized, brecciated zone in granite and quartz monzonite and their gradations. The fracture planes have been filled, through hydrothermal action, with megascopic inclusions or "nuggets" of chalcopyrite, pyrite, bronite, cuprite, malachite and molybdenum oxides.

The brecciated zone shows mineralization in fractures which are numerous and close together and is disseminated between the fractures. This would indicate a good percentage of ore in relation to the volume of the country rock. The density of the fractures vary throughout the gossan area, however, they are generally close together.

Many small "nuggets" of copper and molybdenum ore, in the mineral forms described above, were disseminated throughout the country or host rock between the fractures. The density of the mineralization varied locally, however, it appeared to be rather general throughout the gossan area.

A small creek, which flows through the mineralized area, has a residue of copper oxide (malachite) which forms a crust over the rocks in the stream bed. These rocks show a spectacular blue-green color for several hundred feet down the stream bed. This is also indicative of the magnitude of the copper enrichment of the host rocks.

Estimated volume

The area observed, which did not cover the entire brecciated gossan area, indicates a minimum volume of 8,000,000

tons of minable ore. This tonnage was calculated by using an ore body 800 feet long, 500 feet wide and 200 feet thick as follows:

$$\frac{800 \times 500 \times 200}{10} = \frac{80,000,000}{10} = 8,000,000 \text{ tons}$$

Field observation indicates the total tonnage is of commercial quality, however, drilling, sampling and assaying must be done for proper evaluation.

The above estimated tonnage is considered low because the gossan material extended far beyond the area more closely scrutinized. Mr. Boltz made a more extensive study of the area and observed mineralization about 1500 feet in an north-south direction, 1000 feet in an east-west direction and about 300 feet of topographic difference for the following estimate:

$$\frac{1500 \times 1000 \times 300}{10} = \frac{700,000,000}{10} = 70,000,000 \text{ tons}$$

This estimate is well within the realms of reasoning based upon gossan well beyond the limits of the preliminary inspection. Everything indicates a large minable ore body is present in the basin.

The exact size of the orebody and its true value can only be determined by an extensive drilling, sampling and assaying program. Such a program has been outlined. The type of rocks in the area, the obvious enrichment of the brecciated gossan, and the apparent large size of the enrichment zone, all indicate the area to be a first class prospect. If the quantity and quality are present, the area is ideal for an open pit operation.

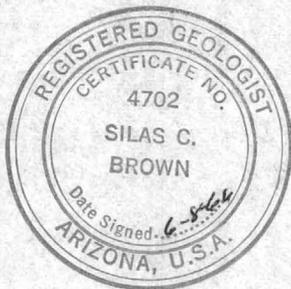
Conclusions & Recommendations

The mineralized rocks exposed at the surface in Copper Basin indicate the presense of a large ore body of sufficient size and value to justify an open pit operation. To confirm these indications, it is recommended that a drilling, sampling and assaying program be instigated to determine the true size and value of the mineralized zone.

From these data, the economics of the mining operations may be determined.

Respectfully submitted,

Silas C. Brown CPG
Registered geologist



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