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VICTOR DOLMAGE

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RICO COPPER MINES LIMITED

by

DR. V. DOLMAGE, }

September 16, 1969

PROPERTY 15 miles from Highway

DOLMAGE, MASON AND STEWART LTD.
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October 3, 1969

Arnold and Associates Ltd.
808 - 525 Seymour Street
Vancouver, B. C.

Attention: Mr. A.M. Arnold

Dear Sir,

RE: My Report Rico Copper Mines Ltd.

Dated September 16, 1969

In this report it is recommended that the possibility of shipping the rich ore already proven on the property should be rigorously investigated. From my knowledge of the geology, topography and the severe snow conditions I am sure that the only practical method of transporting the ore from the deposits down the precipitous north slope to a road to be extended as far as possible up from Wahleach Lake is by aerial tram. I have recommended as a first step that a contour map be made from aerial photos of the area and with the help of the map that a tram line be designed, at least to the point at which a reasonable cost estimate can be made. This map is being prepared by McElhanney Surveying and Engineering Ltd.

Yours truly,
DOLMAGE, MASON & STEWART LTD.



V. Dolmage, P. Eng.,

VD:ss

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RICO COPPER MINES LTD.

The Rico Copper Mine is situated in the high mountains a few miles south of the town of Laidlaw, which is on the Canadian National Railways line between Chilliwack and Hope.

It was discovered many years ago and staked under the name of the Lucky Four. Although only a few miles from the railway and still less from logging roads south of Wahleach Lake the property is, never the less, very difficult of access because of its high altitude and large snow and ice fields. This has greatly retarded the exploration of a promising ore deposit.

The earliest efforts at exploration were made by the then owners, Foley, Welsh and Stewart, who explored three surface showings and did a small amount of drilling with a drill which was dragged up over the deep snow by manpower.

In 1949 Henry ^{L.}~~A.~~ Hill examined the rich surface showings and sampled them. He found that the ore averaged 0.11 oz. of gold and 12.05 oz. of silver per ton and 12.05% copper. He estimated the gross value of \$ 52.17 per ton at the then prevailing metal prices.

He determined the area of the three ore bodies to be 2700 square feet and pointed out that two of them extended under ice fields. This area was estimated to contain 380 tons per foot of depth with a gross value per foot of depth of \$20,000.

At present prices of gold \$ 35.00 per oz; Silver \$1.70 per oz. and copper 60 cents per pound, the above gross value would be \$ 144 - 60 per ton and the 380 tons have a gross value of \$ 55,948.00 per foot of depth.

Hill mentions another ore body 2000 feet to the east which he did not visit, but which was visited years earlier by Paul Billingsly, a highly regarded consulting geologist of Seattle. His report is not available but the showing was of sufficient importance to warrant the driving of an exploratory tunnel, now caved in. Hill recommended the driving of a low level tunnel on the north slope. Later some thought was given to constructing a road up the more gentle south slope from the Chilliwack River road over which the high grade surface ore could be shipped and property further explored.

However, instead of this it was decided to drive a tunnel 200 feet below the surface showings from a portal on the steep north slope. In September 1953 W.C. Ringsleben of Toronto examined the surface showings for a Toronto client and recommended the extension of this tunnel through the mountain to a point under the "A" ore body and that extensive drilling be done from the tunnel in an effort to trace the downward extension of the three ore bodies. This recommendation was adopted and carried out under the supervision of the writer.

The results are fully reported in my report of November 22, 1955, a copy of which is herewith attached.

An excellent geological and topographic map of the area prepared by Prof. W. H. White of the University of British Columbia and published in the Bureau of Mines Annual Report for the year 1949 was used as a base and is reproduced in my report. An estimate of the grade and tonnage using the drilling results and Hill's surface sampling is given on page 3 of my report. It shows 26,016 tons averaging 0.08 ounces of gold, 5.98 ounces of silver per ton and 8.0% copper.

The results were not considered by the owners to be sufficiently encouraging to warrant the continuation of this program, under the difficult and expensive conditions and metal prices then prevailing.

Between 1961 and 1967 an heroic effort was made to further explore a large area of the property by surface geological mapping, geophysical surveys and diamond drilling. The work was done under the direction of H. D. Forman. A granite-argillitic contact was mapped over a large distance, this was surveyed by geophysical methods and later tested by diamond drilling. Steep mountain slopes and extensive snow fields greatly limited the selection of drill sites and therefore the adequate testing of the geological and geophysical possibilities. The results as reported in Mr. Forman's 1967 report were not encouraging.

However, the great increase in metal prices since my work in 1955 has changed the outlook so much that a new assessment of the values of the surface ore and that found by the tunnel drilling is warranted. A careful recalculation of these using

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a method which embraced a little more ground but was confined to ore zones A and B only, and using present metal prices was made by C. F. Medhurst, P. Eng., of Dolmage, Mason and Stewart Ltd. He used a factor of 11.4 cubic feet to the ton, \$ 35.00 per ounce of gold, \$1.60 per ounce of silver, and 55 cents per pound of copper. This copper price is somewhat lower than todays quotes but in view of the considerable time which will lapse before any copper can be sold the 55 cent price is considered more realistic. He arrived at 57,300 tons having an average gross value of \$ 60.59 per ton or a total gross value of 3,470,000 dollars.

This ore would be easily accessible by stoping up from the tunnel. Its high value raises the interesting possibility of transporting this ore by aerial tram from the tunnel to a road south of Wahleach Lake and thence to the Tacoma smelter. The mining of the ore might lead to the discovery of nearby bodies missed by the drill holes and would provide an opportunity to further test the promising band of garnetite in which the ore occurs.

However, as most of this ore and much the richest part of it is at or near the surface, it is possible that it would be more profitable to ship only this surface ore. This, however, would not facilitate the exploration for further ore.

It is my opinion that either of the above possibilities warrants a rigorous investigation and I prefer the tunnel approach because of the possibilities it offers to explore the garnetite body.

*Different Ore
4/00 Ton Day
2000 Ton West Slope
120,000 Ore Per Week*

The planning and cost estimates of an aerial tram cannot be commenced until aerial photos and a contour map prepared therefrom are provided. From these a road could be tentatively laid out extending as near to the deposits as possible and a route for the tram line then selected. Only then can an estimate be made of the cost of transporting the ore to the highway or to the railway at Laidlaw. The cost of the air photos and map would be in the range of \$ 1,000.00.

Respectfully submitted,
DOLMAGE, MASON & STEWART LTD.

V. Dolmage
V. Dolmage, P. Eng.,

VD:ss

September 16, 1969