Province of British Columbia
Ministry of Energy, Mines and Petroleum Resources

MEMORANDUM

017850

To: Dr. A. Sutherland Brown
Chief Geologist

Date: 18 March 1981

Our File:

Re: Visit to Cinola Gold Mines Babe Deposit

In company with Tom Schroeter and Gib McArthur, the deposit was visited on March 1.

The tour was led by the company's consultant from Toronto, Bob Hart and the property geologist, Steve Lacy.

Mineralization has been dated at 13 Ma and occurs in association with slicification in sandstones to pebble to cobble conglomerates of the Skonun Formation. Carbonaceous fragments and lenses are common. The Skonun is separated from older Haida group rocks by a northeast dipping fault which is essentially the footwall of the deposit (some mineralization extends into the Haida).

Along the footwall fault, there are several pod-like areas of "rhyolite". Bob Hart thinks they are silicified zones; Steve Lacy and Tom favour the rhyolite interpretation.

Adjacent to the pyritic gold bearing silicified zone, the country rock is pervasively and intensely kaolinite altered.

Gold occurs in the pyrite, with carbonaceous material and in chalcedonic veins with envelopes of "chert".

In the mill, which is undergoing pilot testing, Ed Wong said that they intend to remove pyrite and carbonaceous material by froth flotation. The ore is ground to -150 mesh prior to flotation. Double flotation to separate the pyritic and carbonaceous fractions will probably be attempted.

Roasting of the concentrate will be done to remove the carbon before the cyanide treatment.

Before the upgraded material is put through the cyanide circuit, it is reground to -500 mesh. The "pregnant" solution is clarified and "deaired", then the gold is precipitated.

Reserves in the deposit are estimated to be 45 million tons at 0.05 oz. Au/ton after 15% dilution and using a cutoff of 0.025 oz. Au/ton. Another 2MT of reserves are below sea level.

W. J. McMillan
Senior Geologist

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