

DISCUSSION ON GEOLOGICAL REPORT ON THE CRONIN MINE

by F. L. Croteau - dated 20 September 1974

INTRODUCTION

I believe that the report written by F. L. Croteau on behalf of Hallmark Resources is a good report and I agree with all of his conclusions and recommendations.

GEOLOGY

Key Phrases: "During intrusion intense shearing and fracturing has taken place in all rock formations".

"The main northeasterly trending fracture has a tendency to follow the rhyolite-sericite schist contact and passes entirely into the sericite schist to the southwest".

Rhyolite: "assumes a bleached and slightly oxidized appearance in the vicinity of strong mineralization".

"There is another rhyolite stock lying about 1500 feet north-east of the main body. This stock is also mineralized".

Sericite Schist: "The sericite schist is undoubtedly a derivative of the intrusive metamorphism. It cannot be classed as favourable a host rock as the rhyolite".

STRUCTURAL GEOLOGY

Key Phrases: "The entire structural concept and control that exists for the orebody.....must be related to the effects created by the intrusion of the igneous stocks into volcanic and sedimentary beds".

"The predominant fault direction is north-easterly".

"Only close detail work will establish this premise" (i.e. significance of faulting).

"The fault pattern developed in the ore zone will in all likelihood tend to be erratic based on the competence and in-competence of the rock being traversed".

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MINERALIZATION

Key Phrases: "Oxidation products are present on and near the surface".

"Yellow staining that may be attributed to cadmium or arsenic is commonly present".

"Leaching of mineral components in the surface veins is not uncommon and it is necessary to trench the rock surface to obtain a proper appreciation of the mineral potential".

"There are indications from limited sample analysis that the sphalerite and freibergite content increases with depth in relationship to the galena. This can be considered as a favourable feature for depth continuity of the ore occurrences".

"There are also indications that two and possibly three different ages of mineralization can be recognized". (requires further detailed study).

ECONOMIC CONSIDERATIONS

The table showing samples with assays (pg. 11) is meaningless without exact positions shown on a map and a description of the true nature of the sample taken.

Key Phrases: "High-grade ore continues to be a common occurrence in the mine workings".

VEIN SYSTEM

Key Phrases: "There is no particular doubt as to the basic reason for the fractures but it is imperative to establish the primary and the secondary fractures as entities, establish their trend direction, secure knowledge of their length and ultimately establish map control through which proper survey control will allow extrapolation of the system into the lower levels of the mining operation".

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CONCLUSIONS

I agree with every point of Croteau's conclusions with the exception of Pt. 4. I would tend to say that management of the operation has been immature and poor. The operation may have been more successful if managed by competent, experienced personnel.

RECOMMENDATIONS

I agree with all recommendations cited by Croteau. All recommendations should be followed, not just a few of them and forget about the remainder.

SUMMARY

Prior to any further development work at the Cronin Mine, an intensive exploration diamond drilling program should be undertaken to assess its true mineral potential. This program would entail both surface and underground drilling. The holes should be long enough to test both lateral and vertical continuity within the mine.

Respectfully submitted,

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