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June 21, 1951

Memorandum

To: A. W. Weissenborn, Executive Officer, DMA, Field Team, Region II

From: Eric C. Erickson, Mining Engineer, U.S.B.M.
Elton A. Youngberg, Geologist, U.S.G.S.
R. A. Christman, Geologist, U.S.G.S.

Subject: Docket WVA-336, Cascade Mining Company
Henry F. Trent, President
Box 79
Skykomish, Washington

Recommendations:

The examining team recommends that the Cascade Mining Company's application for a production loan be denied. The ores of the Cleopatra and Aces up are essentially valuable for their silver content. The amounts of recoverable lead, zinc, and antimony are not sufficient to justify the project. Ore reserves as indicated in the application are not present. The veins are very narrow and lenticular and they are not believed to be feasible objectives for an exploratory program.

Summary of Field Examination

Two days were spent examining the workings of the Cleopatra and Aces up claims. The two mines have an approximate total of [illegible],000 feet of workings. In times past, 55 carloads of silver ore are reported to have been produced from the Cleopatra.

The veins are narrow fissures in granodiorite filled with quartz, arsenopyrite and lesser amounts of sphalerite, stibnite, galena and silver. The average width in the Aces up is about 4" and the Cleopatra 10". They swell and pinch rapidly and form short shoots of ore.

The complex nature of the ore makes treatment costly. Treatment charges for the ore and concentrates are high because of the high arsenic content. The antimony cannot be concentrated into an acceptable product. The ores are principally valuable for their silver content and the amount of base metal which could be recovered and marketed is small. The production

loan requested cannot be justified because of the lack of ore reserves, and the inaccessibility of the Cleopatra mine.

The lenticular and narrow veins do not indicate that an exploration project is feasible.

It is believed that in other mining districts properties are available which offer better chances of disclosing new reserves of lead, zinc, and antimony.