

Gold Mineralization Characteristics of the Cibaliung Gold Deposit in Western Java, Indonesia

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Abstract

The Cibaliung deposit is located in Pandeglang, Banten Province, western Java, Indonesia. The previous studies were done only in using outcrop and boring-core, however, samples used in this study were collected from the face in operating underground mine as well. The objectives of this study are, at first, to compare the data from the face of underground to the previous data. Next is to characterize Cikoneng and Cibitung shoots.

The alteration minerals of Cibitung shoot are quartz, laumontite and illite-smectite mixed layer. Gangue minerals are quartz and prehnite. Ore minerals are electrum, pyrite, chalcopyrite, sphalerite, galena, marcasite and argentite. On the other hand, the alteration minerals of Cikoneng shoot are quartz, adularia, clinocllore and chlorite-smectite mixed layer. Gangue minerals are quartz and chlorite-smectite mixed layer. Ore minerals are electrum, native silver, pyrite, chalcopyrite, shalerite, galena, marcasite, argentite, aguilarite and mackinstryite. Electrums of Cikoneng shoot have wider range of atomic ratio of Ag contents than Cibitung shoot. In the same way, sphalerites of Cikoneng shoot have wider range of atomic ratio of Fe contents. This suggests that Cibitung shoot was made in more steady circumstance. On the other hand, the Cikoneng shoot was formed in accompanying the change of sulfur fugacity and temperature. Host rocks of these areas have almost neutral alteration but slightly alkaline and especially. The quartz veins with clay minerals are high grade. Especially, high-grade ore is found in corrensite.