

Petrology of Rorah Kadal Host Rock in Cibaliung West Java : The effect of Hydrothermal Activity

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Abstract

The Rorah Kadal prospect is located about 700 m. south of the Cikoneng-Cibitung ore-shoot of low sulfidation epithermal gold mine, western Java, Indonesia that hosted by Miocene Honje Formation. This preliminary study presents petrology of Rorah Kadal host rock that affected by hydrothermal activity in Rorah Kadal Gold Prospect. Petrography observation and X-ray fluorescence were used to analyze the drill core samples. The result indicate the host rocks are composed of volcanic andesite, lava andesite-basaltic were altered from weak to strong intensity with pervasive and selective alteration. The rocks cross cut by quartz vein with crustiform and colloform banding. The clay and chlorite secondary minerals signatures are frequently found in all host rock. The variation of composition major element such as: SiO₂ range from 46.42 to 54.28, TiO₂: 0.86 – 1.34, K₂O: 0.23 – 2.95, and LOI: 3.62 – 8.11% wt respectively. Based on alteration mineral and textures, hydrothermal processes are thought to be controlled by low temperature hydrothermal activity.

Keywords: Rorah Kadal, Cibaliung, petrography, alteration mineral