

**KARAKTERISTIK ALTERASI DAN MINERALISASI
TAMBANG BAWAH TANAH PROSPEK ELSA LEVEL 445 - 460,
DAERAH PONGKOR, KECAMATAN NANGGUNG, KABUPATEN BOGOR,
PROVINSI JAWA BARAT**

SARI

Daerah pongkor termasuk dalam fisiografi regional Kubah Bayah yang memiliki sumber daya mineral ekonomis berupa emas dan perak. Penelitian ini bertujuan untuk mengetahui karakteristik alterasi dan mineralisasi yang terjadi pada daerah penelitian, berdasarkan pengamatan megaskopis dan mikroskopis. Pengamatan megaskopis berupa pemetaan bawah permukaan pada level 445-460 dan deskripsi sampel inti bor, serta pengamatan mikroskopi berupa analisis petrologi, *X-Ray Diffraction* (XRD), *X-Ray Fluorescence* (XRF), mikroskopi bijih, *fire assay*, dan *Scanning Electron Microscopy* (SEM). Hasil pengamatan dan pemetaan bawah tanah level 445-460 didapatkan tiga satuan batuan dari tua hingga muda yaitu, Satuan Breksi Andesit, Satuan Tuf Lapili, dan Intrusi Andesit. Zona alterasi pada daerah penelitian terbagi menjadi tiga zona, diantaranya yaitu Zona Kuarsa-Adularia-Klorit-Smektit±Kalsit, Zona Kuarsa-Smektit-Montmorilonit-Ilit, dan Zona Kuarsa-Epidot-Klorit±Kalsit. Mineralisasi yang terdapat pada daerah penelitian berupa pirit, kalkopirit, spalerit, galena, kovelit, *native Au*, dan *native Ag*. Berdasarkan hasil dari analisis tersebut dapat diinterpretasikan bahwa daerah penelitian termasuk dalam tipe endapan epitermal sulfida rendah.

Kata Kunci : Alterasi, Mineralisasi, Tambang Bawah Tanah, Pongkor

**ALTERATION AND MINERALIZATION CHARACTERISTICS OF ELSA
PROSPECT UNDERGROUND MINING LEVEL 445-460, PONGKOR AREA,
NANGGUNG DISTRICT, BOGOR REGENCY, WEST JAVA PROVINCE**

ABSTRACT

The Pongkor area is included in the Bayah Dome regional physiography, which has economic mineral resources in the form of gold and silver. This study aims to determine the characteristics of alteration and mineralization that occur in the study area based on megascopic and microscopic observations. Megascopic observations include subsurface mapping at levels 445-460 and drill core sample descriptions, and microscopic observations include petrological analysis, X-Ray Diffraction (XRD), X-Ray fluorescence (XRF), ore microscopy, fire assay, and scanning electron microscopy (SEM). The results of observations and underground mapping at levels 445-460 obtained three rock units from old to young, namely, the Andesite Breccia Unit, the Lapili Tuff Unit, and the Andesite Intrusion. The alteration zone in the study area is divided into three zones, including the Quartz-Adularia-Chlorite-Smectite±Calcite Zone, the Quartz-Smectite-Montmorillonite-Ilite Zone, and the Quartz-Epidot-Chlorite±Calcite Zone. Mineralization found in the study area is in the form of pyrite, chalcopyrite, sphalerite, galena, covellite, native Au, and native Ag. Based on the results of the analysis, it can be concluded that the study area belongs to the low-sulfide epithermal deposits.

Keywords: Alteration, Mineralization, Underground Mine, Pongkor

