SARI

Daerah penelitian secara administrasi terletak di Kecamatan Pronojiwo dan sekitarnya, Kabupaten Lumajang, Provinsi Jawa Timur. Latar belakang yang mendasari penelitian ini yaitu peningkatan kebutuhan logam ekonomis sehingga dibutuhkan prospek baru terkait endapan mineral. Tujuan dari penelitian ini yaitu untuk mengetahui kondisi geologi, alterasi, dan mineralisasi di daerah penelitian. Metode yang dilakukan dalam penelitian ini yaitu studi pustaka, interpretasi citra penginderaan jauh untuk kelurusan struktur, pemetaan geologi, alterasi, dan mineralisasi, serta analisis laboratorium meliputi analisis petrografi, analisis mineragrafi, analisis stereografis, assay, dan *analytical spectral device*. Stratigrafi daerah penelitian dari tua ke muda tersusun atas satuan breksi Sumberurip, intrusi diorit kristal sedang, intrusi diorit kristal kasar, intrusi diorit kristal halus, satuan breksi Tamanayu, dan endapan aluvial. Struktur geologi di daerah penelitian terdiri dari sesar yang terdiri dari 3 jenis, yaitu sesar mendatar kanan orde 1 (barat laut - tenggara), sesar mendatar kiri orde 1 (timur laut - barat daya), dan sesar mendatar kiri orde 2 (timur timur laut - barat barat daya). Zona alterasi di daerah penelitian terdiri dari 5 zona alterasi, yaitu zona alterasi filik, zona alterasi argilik lanjut, zona alterasi argilik, zona alterasi propilitik dalam, dan zona alterasi propilitik luar. Berdasarkan kondisi dan data lapangan serta diperkuat dengan analisis laboratium menggunakan ASD, assay, dan peneliti terdahulu pada daerah penelitian diindikasikan mengarah pada sistem endapan porfiri.

Kata Kunci: Alterasi, Geologi, Mineralisasi, Porfiri, Pronojiwo

ABSTRACT

The research area is administratively located in Pronojiwo District and its surroundings, Lumajang Regency, East Java Province. The background underlying this research is the increasing need for economic metals so that new prospects are needed related to mineral deposits. The purpose of this study is to determine the geological conditions, alteration, and mineralization in the research area. The methods used in this study are literature studies, interpretation of remote sensing imagery for structural straightness, geological mapping, alteration, and mineralization, and laboratory analysis including petrographic analysis, mineragraphic analysis, stereographic analysis, assay, and analytical spectral device. The stratigraphy of the research area from old to young consists of Sumberurip breccia units, medium crystal diorite intrusions, coarse crystal diorite intrusions, fine crystal diorite intrusions, Tamanayu breccia units, and alluvial deposits. The geological structure in the research area consists of faults consisting of 3 types, namely right-hand strike-slip faults of order 1 (northwest - southeast), left-hand strike-slip faults of order 1 (northeast - southwest), and left-hand strike-slip faults of order 2 (east northeast - west southwest). The alteration zone in the research area consists of 5 alteration zones, namely phyllic alteration zone, advanced argillic alteration zone, argillic alteration zone, deep propylitic alteration zone, and outer propylitic alteration zone. Based on field conditions and data and reinforced by laboratory analysis using ASD, assay, and previous researchers in the research area, it is indicated to lead to a porphyry deposition system.

Keywords: *Alteration, Geology, Mineralization, Porphyry, Pronojiwo*