

ABSTRAK

Daerah penelitian terletak di Kecamatan Kuala Behe, Kabupaten Landak, Provinsi Kalimantan Barat. Daerah ini diketahui terdapat aktivitas penambangan emas yang dilakukan oleh masyarakat lokal, sehingga lokasi ini memiliki indikasi adanya mineral logam yang berkaitan dengan sistem hidrotermal, namun karakteristik geologinya belum diteliti secara detail. Penelitian ini bertujuan untuk mengkaji kondisi geologi, tipe alterasi, dan sebaran mineralisasi logam di daerah tersebut. Metode penelitian yang digunakan adalah pemetaan geologi, alterasi, dan mineralisasi, serta pengambilan sampel batuan untuk analisis laboratorium meliputi analisis petrografi, mineragrafi, dan *x-ray diffraction*. Stratigrafi daerah penelitian dari tua ke muda tersusun atas satuan serpih Pedawan, satuan konglomerat Kayan, Andesit Sintang dan Diorit Sintang. Zona alterasi yang hidrotermal yang berkembang terdiri atas potasik, propilitik, filik, argilik, dan silisik. Mineralisasi utama yang ditemukan berupa pirit, kalkopirit, magnetit, dan hematit yang ditemukan secara disseminasi dan pengisian rekahan. Berdasarkan kondisi lapangan dan pengolahan data serta diperkuat dengan analisis laboratorium, hasil penelitian mengindikasikan bahwa daerah penelitian memiliki potensi endapan porfiri. Oleh karena itu, daerah penelitian memiliki potensi positif terkait keberadaan mineral logam yang harus dikelola dengan regulasi yang baik.

Kata Kunci : Alterasi, Geologi, Mineralisasi, Kuala Behe, Porfiri

ABSTRACT

The research area is located in Kuala Behe District, Landak Regency, West Kalimantan Province. This area is known to have gold mining activities carried out by the local community, so this location has indications of metal minerals related to the hydrothermal system, but its geological characteristics have not been studied in detail. This study aims to examine the geological conditions, alteration types, and distribution of metal mineralization in the area. The research methods used are geological mapping, alteration, and mineralization, as well as rock sampling for laboratory analysis including petrography, mineragraphy, and x-ray diffraction analysis. The stratigraphy of the research area from old to young is composed of Pedawan shale units, Kayan conglomerate units, Sintang Andesite and Sintang Diorite. The hydrothermal alteration zone that developed consists of potassic, propylitic, phyllic, argillic, and silicic. The main mineralization found is pyrite, chalcopyrite, magnetite, and hematite which are found by dissemination and fracture filling. Based on field conditions and data processing and reinforced by laboratory analysis, the results of the study indicate that the research area has the potential for porphyry deposits. Therefore, the research area has positive potential related to the existence of metal minerals that must be managed with good regulations.

Keywords: *Alteration, Geology, Mineralization, Kuala Behe, Porphyry*