Karakteristik Batugamping pada Endapan Mineral Skarn di Sekitar Formasi Jampang, Lapangan Gajah, Sukabumi, Jawa Barat = Characteristics of Limestone in Skarn Mineral Deposits AroundcJampang Formation, Gajah Field, Sukabumi, West Java

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Abstrak

Sukabumi merupakan salah satu wilayah yang memiliki potensi bijih timbal. Pada area penelitian terdapat endapan mineral skarn dengan host rock batugamping. Namun, karakteristik host rock batugamping dan tipe skarn belum diketahui. Kedua hal tersebut perlu diketahui untuk kepentingan penentuan zona prospek bijih. Penelitian ini bertujuan untuk mengidentifikasi karakteristik batugamping di sekitar endapan skarn sehingga dapat diketahui tipe endapan skarn daerah penelitian. Penelitian menggunakan metode kuantitatif dan kualitatif pada analisis petrologi, petrografi, mineragrafi, pemodelan eksplisit, dan atomic absorption spectrometry (AAS). Karakteristik batugamping di sekitar endapan skarn terdiri dari parameter lithofasies, tingkat metamorfisme, jenis alterasi, jenis mineralisasi bijih, dan kadar bijih. Batuan yang ditemukan memiliki tiga kelompok, yaitu batugamping, metagamping, dan marmer. Lithofasies di sekitar endapan skarn terdiri dari wackestone, packestone, floatstone, rudstone, boundstone, litho-bioclastic limestone, dan marmer. Sementara itu, kelompok metagamping dan marmer mengalami metamorfisme dalam tiga tingkat, yaitu slighly metamorphed, moderately metamorphed, dan highly metamorphed. Batuan teralterasi progradasi dan retrogardasi. Mineral progradasi yang ditemukan didominasi klinopiroksen anggota aegirin, augit, hedenbergit, dan diopsid. Sementara alterasi retrogradasi menghasilkan mineral klorit, serpentin, epidot, amfibol, dan mineral bijih sulfida. Mineral bijih pada batuan terdiri dari pirit, pirhotit, sfalerit, dan galena dengan jenis mineralisasi fossil casted mineralization dan non-fossil casted mineralization dan kadar bijih didominasi unsur Pb dan Zn. Host rock mineralisasi bijih pada endapan skarn berupa boundstone dan unknown limestone facies yang paralel dengan boundstone. Mineralisasi pada fasies boundstone dikontrol oleh open space berupa moldic pore, sementara unknown limestone facies dikontrol oleh secondary pore. Endapan skarn daerah penelitian merupakan Pb-Zn skarn yang berada dalam posisi distal terhadap intrusi.
.....Sukabumi is one of the areas that has lead ore potential. In research area, there is skarn mineral deposit with limestone as host rock. However, the characteristics of the limestone host rock and the type of skarn are not yet known. These two things need to be known for the purpose of determining the ore prospect zone. This research aims to identify the characteristics of limestone around the skarn deposits so that the type of skarn deposits in the study area can be identified. The research uses quantitative and qualitative methods in petrological, petrography, mineragraphy, explicit modeling, and atomic absorption spectrometry (AAS). The characteristics of limestone around skarn deposits consist of lithofacies, metamorphism level, alteration type, ore mineralization type, and ore grade. The rocks found have three groups, namely limestone, meta-limestone, and marble. Lithofacies around skarn deposits consist of wackestone, packestone, floatstone, rudstone, boundstone, litho-bioclastic limestone, and marble. Meanwhile, the metalimestone and marble groups have three levels of metamorphism, there are slighly metamorphed, moderately metamorphed, and highly metamorphed. The limestone is impacted by prograde and retrograde altered rock. The prograde minerals found were dominated by clinopyroxene members of aegirin, augite, hedenbergite, and diopsid.

While retrogradation alteration produces chlorite, serpentine, epidote, amphibole, and sulfide ore minerals. The ore minerals in the rock consist of pyrite, pyrrhotite, sphalerite, and galena with the type of mineralization fossil casted mineralization and non-fossil casted mineralization and the ore grade is dominated by Pb and Zn elements. The host rock of ore mineralization in skarn deposits is boundstone and unknown limestone facies that is parallel to the boundstone. Mineralization in the boundstone facies is controlled by open space in the form of a moldic pore, while the unknown limestone facies is controlled by a secondary pore. The skarn deposit in the study area is a Pb-Zn skarn which is in a position distal to the intrusion.