

## ABSTRAK

Daerah Kobok merupakan salah satu daerah prospek pada wilayah kerja lapangan emas Gosowong yang mana memiliki indikasi alterasi dan mineralisasi tipe epitermal sulfida rendah. Berlandaskan hal tersebut, penelitian dilakukan untuk mengetahui kondisi geologi, karakteristik alterasi dan mineralisasi epitermal berupa mineral alterasi dan mineral bijih serta hubungan terhadap kondisi geologinya. Metode yang digunakan pada penelitian ini meliputi pemetaan geologi, analisis struktur geologi dan alterasi secara rinci dan analisis conto terpilih menggunakan metode petrografi, *ASD Terraspec*, mineragrafi. Stratigrafi daerah telitian terdiri atas lava basal, lava andesit, dasit, lava dasit, intrusi diorit dan endapan tuff Formasi Gunungapi Kuarter. Dimana Lava basal dan sebagian andesit diinterpretasikan bagian dari Formasi Gosowong yang berumur Miosen Akhir hingga Pliosen dan dasit, lava dasit dan lava andesit diinterpretasikan merupakan bagian dari Formasi Kayasa yang berumur Pliosen Akhir hingga Pleistosen, yang mana merupakan batuan teralterasi dan termineralisasi bijih. Terdapat beberapa pola arah struktur geologi pada daerah telitian yakni NW, N-NNE, NE dan E, dimana bentuk struktur yang berkembang berupa sesar dan kekar. Pola struktur berarah NW hingga N-NNE didapati merupakan urat epitermal berupa urat-urat kuarsa yang memiliki tekstur kristalin hingga *comb*. Hasil analisis *ASD Terraspec*, petrografi dan mineragrafi menunjukkan bahwa terdapat 2 zonasi endapan epitermal sulfida rendah yakni zona *serisite-adularia* dengan mineral bijih pirit dan galene dengan mineral pengotor epidot, garnet, kuarsa serta tekstur urat kristalin hingga *comb* dan zona *alunite-kaolinite* dengan mineral bijih Hematit dan Magnetit dengan mineral pengotor garnet dan kuarsa serta tekstur urat kalsedon. Hasil analisis *ASD Terraspec* dan petrografi juga menunjukkan bahwa tipe mineral alterasi daerah telitian terbagi menjadi 4 yaitu silisik (Serisit-Kuarsa-Adularia), argilik (Illite-Smektit), argilik lanjut (Kaolinit-Alunit-Dickite), Propiltik (Epidot-Klorit ± Karbonat ± Smektit). Berdasarkan hasil data diatas disimpulkan bahwa daerah telitian termasuk kedalam sistem epitermal sulfida rendah dengan pola struktur berarah NW hingga N-NNE sebagai jalur endapan dan migrasi fluida hidrotermal.

**Kata Kunci :** Alterasi, Geologi, Karakteristik, Mineralisasi Bijih, Struktur Geologi, Urat Epitermal

## **ABSTRACT**

*The Kobok area is one of the prospect areas in the Gosowong gold field working area which has indications of low-sulfide epithermal type alteration and mineralization. Based on this background, a study was conducted to determine the geological conditions, characteristics of alteration and epithermal mineralization in the form of alteration minerals and ore minerals and the relationship to geological conditions. The methods used in this study include geological mapping, detailed geologic structure and alteration analysis and analysis of selected samples using petrographic methods, ASD Terraspec, mineragraphy. The stratigraphy of the study area consists of basalt lava, andesite lava, dacite, dacite lava, diorite intrusion and tuff deposits of Quaternary Volcanic Formation. Where basalt lava and some andesite are interpreted as part of the Gosowong Formation of Late Miocene to Pliocene age and dacite, dacite lava and andesite lava are interpreted as part of the Kayasa Formation of Late Pliocene to Pleistocene age, which is an altered rock and mineralized ore. There are several patterns of structural geologic directions in the region, such as NW, N-NNE, NE and E, where the shape of the structure that develops in the form of faults and faultlines. The structure pattern in the NW to N-NNE direction is found to be epithermal veins in the form of quartz veins which have a crystalline to comb texture. The results of ASD Terraspec analysis, petrography and mineragraphy show that there are 2 zones of low sulfide epithermal deposits, namely the serisite-adularia zone with pyrite and galene ore minerals with epidote, garnet, quartz impurity minerals and crystalline to comb vein textures and the alunite-kaolinite zone with Hematite and Magnetite ore minerals with garnet and quartz impurity minerals and chalcedony vein textures. The results of ASD Terraspec analysis and petrography also show that the alteration mineral type of the study area is divided into 4 namely silicic (Sericitic-Quartz-Adularia), argillic (Illite-Smectite), advanced argillic (Kaolinite-Alunite-Dickite), Propylitic (Epidote-Chlorite ± Carbonate ± Smectite). Based on the results of the above data, it is concluded that the study area is included in a low sulfide epithermal system with a NW to N-NNE oriented structural pattern as a pathway for hydrothermal fluid deposition and migration.*

**Keyword :** *Alteration, Characteristics, Geology, Ore Mineralization, Structural Geologic, Vein Epithermal*