

ABSTRAK

STUDI ANALISIS TIPE ENDAPAN HIDROTERMAL TIPE SULFIDASI RENDAH BESERTA PERSEBARANYA BERDASARKAN DATA GEOMAGNETIK DI DAERAH PLAMPANG, KALIREJO, KOKAP, KABUPATEN KULONPROGO, YOGYAKARTA

FAJAR SULISTYO
115.140.053

Potensi endapan mineralisasi bijih primer emas (Au) di daerah Plampang dan sekitarnya, Kabupaten Kulonprogo merupakan hasil aktifitas intrusi ganda pada daerah pasca vulkanik Kulonprogo. Studi geofisika metode geomagnetik bermaksud untuk mendelineasi zona prospek mineralisasi bijih primer Au serta menyelidiki pola persebarannya pada daerah penelitian dengan mengacu pada data geologi yang ada. Pengukuran metode geomagnetik dilakukan dengan 8 lintasan sepanjang 1,7 km, memotong arah umum struktur pengontrol mineralisasi, dengan jarak spasi antar titik 50 m dan jarak antar lintasan 143 m. Persebaran urat mineralisasi di daerah telitian memiliki arah umum berkisar N 51°E - N 76°E (timurlaut-baratdaya) mengikuti pola struktur regional Sesar Kali Plampang. Hasil deliniasi pada peta anomali *Tilt-Derivative* yang dikorelasikan dengan data geologi permukaan, didapatkan dua dugaan zona prospek endapan mineralisasi, yaitu zona "1" dan zona "5" yang ditandai dengan hadirnya asosiasi mineral galena, sphalerit, kovelit dan bornit sebagai mineral kunci yang umumnya berasosiasi dengan endapan mineral logam Au. Dari analisa peta RTP dan permodelan bawah permukaan diperkirakan persebaran zona alterasi semakin menguat ke arah utara yang ditandai pola demagnetisasi sekaligus menandakan bahwa daerah utara lokasi penelitian relatif dekat dengan zona inti sistem epitermal yang ada. Dugaan tersebut diperkuat dengan adanya singkapan alterasi silisik bertekstur *vuggy*, serta hadirnya mineral barit di sekitar LP 6 sebagai penciri pembentukan suhu tinggi. Potensi kandungan mineral bijih primer emas di daerah utara di perkirakan lebih tinggi dibandingkan pada daerah selatan seiring dengan meluasnya pola persebaran jenis ubahan filik dan argilik sebagai penanda semakin mendekatnya pada sumber fluida magmatik termineralisasi.

Kata kunci : geomagnetik, epitermal sulfida-rendah, emas, *tilt-derivative*, RTP, struktur, demagnetisasi.

ABSTRACT

LOW SULFIDATION HYDROTHERMAL DEPOSITS TYPES ANALYSIS AND IT'S DISTRIBUTION BASED ON GEOMAGNETIC DATA IN PLAMPANG AREA, KALIREJO, KOKAP, KULONPROGO REGENCY OF YOGYAKARTA

FAJAR SULISTYO
115.140.053

Potential of primary gold (Au) mineralization deposits in the Plampang area and its surroundings, Kulonprogo Regency is the result of multiple intrusion process in the post-volcanic region of Kulonprogo. The geophysical study of the geomagnetic method intends to delineate the prospect zone of Au primary ore deposits and investigate its distribution pattern in the study area by referring to existing geological data. The measurement of the geomagnetic method was carried out with 8 lines along 1.7 km, cutting the general direction of the mineralization control structure, with 50 m spacing of measurement points and a distance between lines are 143 m. The distribution of mineralized veins in the study area has a general direction N 51 ° E - N 76 ° E following the pattern of the regional Plampang Fault. The results of delineation on the Tilt-Derivative anomaly map correlated with surface geological data obtained two presumptive mineralization deposits prospect zones, There were zone "1" and "5" which were characterized by the presence of mineral associations galena, sphalerit, kovelit and bornite as key minerals generally associated with Au mineral deposits. From the RTP map and subsurface modeling analysis was estimated that the distribution of alteration zones strengthens toward north which is marked by demagnetization patterns while indicating that the northern regions of the research location are relative close to epithermal core system zones. This suspicion is reinforced by the presence of vuggy textured silicic alteration outcrops, as well as the presence of barite minerals around LP 6 as a characteristic of high temperature mineral formation. The potential of primary gold content deposits in the northern region is estimated to be higher than the southern region along the widespread pattern of distribution of phylic and argillic alteration as markers increasingly closer to the mineralized magmatic fluid source.

Keywords: *geomagnetic, tilt-derivative, gold, epithermal low-sulfidation, RTP, fault, demagnetization.*