INTISARI

PENENTUAN ZONA MINERALISASI EMAS MENGGUNAKAN METODE POLARISASI TERINDUKSI DI DESA CIHONJE, KECAMATAN GUMELAR, KABUPATEN BANYUMAS, PROVINSI JAWA TENGAH

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Penelitian menggunakan metode Polarisasi Terinduksi telah dilakukan di Desa Cihonje, Kecamatan Gumelar, Kabupaten Banyumas, Provinsi Jawa Tengah dengan tujuan untuk mengetahui persebaran zona mineralisasi emas pada daerah tersebut. Pengambilan data IP dilakukan dalam kawasan waktu menggunakan konfigurasi dipol-dipol dengan nilai n maksimal 6 dan jarak antar elektroda 20 meter. Pengukuran tersebut dilakukan pada tanggal 7 – 16 Mei 2016 untuk 9 lintasan terukur dengan jarak antar lintasan 150 meter menggunakan alat *Syscal Jr*.

Berdasarkan nilai resistivitas dan *chargeability* di daerah penelitian maka dapat dikelompokkan bahwa terdapat zona lapisan jenuh air memiliki nilai resistivitas 0 – 100 Ωm dan nilai *chargeability* 0 – 10 ms, zona alterasi memiliki nilai resistivitas 0 – 100 Ωm dan nilai *chargeability* >10 ms, zona mineralisasi emas memiliki resistivitas tinggi > 100 Ωm dan nilai *chargeability* > 10 ms, dan batuan vulkanik yang belum atau tidak teralterasi memiliki nilai resistivitas > 100 Ωm dan nilai *chargeability* 0 – 10 ms. Berdasarkan posisi lintasan pengukuran, maka zona mineralisasi emas terbagi menjadi 2 yaitu area barat dan area timur yang dipisahkan oleh Sesar Geser Kiri Paningkaban.

Kata Kunci : polarisasi terinduksi, mineralisasi emas, resistivitas, *chargeability*.

ABSTRACT

DETERMINATION OF GOLD MINERALIZATION ZONE USING INDUCED POLARIZATION (IP) METHOD AT CIHONJE VILLAGE, GUMELAR SUB-DISTRICT, BANYUMAS DISTRICT, CENTRAL JAVA PROVINCE

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Research using Induced Polarization (IP) method has been carried out at Cihonje Village, Gumelar Sub-District, Banyumas District, in the province of Central Java in order to determine the distribution of gold mineralization zone on the area. The Induced Polarization (IP) data has taken by dipole – dipole configuration in a time domain within the maximum value of n is 6 and the distance between electrodes is 20 metre. The research was taken on May, 7^{th} – 16^{th} 2016 with 9 lines of measurements with 150 metre distance for every line using an instrument Syscal Jr.

Based on resistivity and *chargeability* value on the research area, it can be classified into water saturated zone with resistivity value 0-100 Ωm and *chargeability* value 0-10 ms, alteration zone with resistivity value 0 - 100 Ωm and *chargeability* value > 10 ms, zones of gold mineralization with resistivity value >100 Ωm and *chargeability* value > 10 ms, and volcanic rocks that have not or do not altered with resistivity value > 100 Ωm and *chargeability* value 0-10 ms. Because of the position of line measurements, the gold mineralization zone can be classified into 2 areas. Those are west area and east area, which separated by Paningkaban's left – handed strike – slip fault.

Keyword : Induced polarization, gold mineralization, resistivity, *chargeability*.