

Pemodelan terintegrasi data polarisasi terimbas dengan data magnetik untuk identifikasi deposit emas di Daerah S, Banten.

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Abstrak

Metode terintegrasi (Polarisasi Terimbas dan Magnetik) dapat memberikan gambaran struktur batuan bawah permukaan yang mengandung mineral sulfida (emas). Berdasarkan kondisi geologi pembentukan mineral emas, daerah prospek "S" Banten ini termasuk dalam sistem epitermal dengan urat kuarsa (vein) yang terlokalisir di daerah struktur patahan. Pengukuran Magnetik dan IP pada tiap titik pengukuran menghasilkan perbedaan harga hasil pengukuran akibat beda sifat fisik batuan. Pengukuran Induced Polarization (IP) frekuensi domain telah dilakukan dengan spasi elektroda 20 m sebanyak 6 lintasan, dan pengukuran magnetik telah dilakukan guna mendapatkan harga intensitas magnetik total dengan reduksi Upward Continuation. Pemodelan terintegrasi 2D data IP dan Magnetik telah memberikan informasi penyebaran vein kuarsa yang berhubungan dengan deposit emas sehingga daerah prospek dapat dilokalisir. Dari hasil studi ini disimpulkan bahwa vein kuarsa terdapat pada lintasan-1, lintasan-2, dan lintasan-6 dengan kedalaman ± 50 meter. Dan penyebab adanya sumber anomali dapat diidentifikasi di lintasan-6.

<hr>Integrated methods (Induced Polarization and Magnetic) may give a glimpse of structure beneath surface which contains sulphide minerals (gold). According to geological condition which forms gold, this "S" prospect area is considered as an epithermal system with kuarsa vein that is located in the fault structure. The result of Magnetic and IP measurement on each measuring point shows differences due to the differences of compositions of rock. Has been done measuring Induced Polarization Frequency Domain with electrode spacing of 20m for 6 lines and Magnetic measurement has also been done to achieve total magnetic intensity with Upward Continuation reduction. 2D integrated model from IP and Magnetic data has provide information on quartz vein spreading which connected with gold deposit, in return prospect areas can be located. From this study we can summarize that quartz vein are located on line-1, line-2, and line-6 with depth approximately 50 meters. And the reason for anomaly source can be indicated on line-6.