Pemodelan 3 Dimensi Endapan Bijih Besi menggunakan Metode Resistivity dan Induced Polarization (IP)

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Abstrak

Endapan bijih besi terdapat dalam satuan batuan ultramafik-mafik. Satuan batuan ini terdiri atas gabro dan peridotit yang telah mengalami serpentinisasi. Dalam bijih besi terkandung mineral bijih kromit, magnetit dan hematite. Berdasarkan pada komposisi mineralogi dan kimia, pembentukan endapan bijih besi diduga oleh proses magmatik; kemudian mengalami proses replacement dan oksidasi. Dengan kisaran nilai resistivity 42 -179 ohm.m yang mewakili endapan bijih besi kurang memperlihatkan kontras resistivity yang baik Anomali terbentuk pada nilai induced polarization (IP)-nya dengan kisaran nilai chargeability 24 -107 msec. Dari pemodelan IP 3 dimensi diperoleh model endapan bijih besi berbentuk podform dan lensa-lensa kecil.

.....Iron ore deposits to be found on the mafic-ultramafic rocks units which consists of serpentinized gabbro and peridotite. The iron ore contains cromite, magnetite and hematite. Base on mineralogy and chemical composition, iron ore deposits is predicted to be formed by magmatic process and occurred a replacement and oxidation processes later. With range of 42 -179 ohm.m resistivity value that represent the ore iron deposits less show well contrast. Anomaly occurre on its induced polarization (IP) value with range of 24 -107 msec chargeability value which represent the iron ore deposit. Of the IP 3D modelling to be found the model of iron ore deposits have the form of podform and small lens.