

## Pemodelan data IP-Resistivity dan magnetik untuk melokalisir endapan nikel laterit di daerah "LTD", Sulawesi Tenggara = Modelling of IP-Resistivity and magnetic data for determining the spread of nickel laterite deposition in "LTD" region Southeast Sulawesi

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### Abstrak

Metode terintegrasi pada Induced Polarization (IP) dan Magnetik dapat memberikan gambaran struktur batuan bawah permukaan yang mengandung endapan mineral seperti nikel. Berdasarkan kondisi geologi, daerah prospek "LTD" ini termasuk dalam endapan nikel laterit. Pengukuran magnetik dan geolistrik pada tiap titik pengukuran menghasilkan hasil yang berbeda-beda karena dipengaruhi sifat fisik batuan yang berbeda. Pengukuran Induced Polarization (IP) time domain telah dilakukan dengan spasi elektroda 50 m sebanyak 21 lintasan, dan pengukuran magnetik telah dilakukan guna mendapatkan harga intensitas magnetik total dengan reduksi Upward Continuation 40 m. Pemodelan terintegrasi 2D dan 3D data IP-Resistivity telah memberikan informasi penyebaran endapan mineralisasi yang terdapat pada daerah prospek "LTD" dan dapat dilokalisir. Dari hasil studi ini disimpulkan bahwa endapan mineral nikel terkonsentrasi pada bagian timur dan barat daerah penelitian.

.....Integrated methods of Induced Polarization (IP) and Magnetic can explain the subsurface rock structures that contain minerals such as nickel deposit. Based on the geological setting, "LTD" prospect area was included in the nickel laterite deposit. Magnetic and electrical resistivity measurements at each measurement point produced different results because it affected the physical properties of different rocks. Measurement of Induced Polarization (IP) have been performed on time domain with 50 m electrode spacing of 21 lines, and magnetic measurements have been done to get the value of the total magnetik intensity with the reduction of upward continuation 40 m. Modelling of integrated 2D and 3D IP-Resistivity data have provided information on the spread of the mineral deposits in the prospect "LTD" area and can be localized. From the results of this study showed that the mineral nickel deposits are concentrated in the eastern part and western part of the study area.