

Prospeksi endapan nikel laterit di Kecamatan Pomalaa, Kabupaten Kolaka, Provinsi Sulawesi Tenggara = Prospecting of nickel laterite deposits in Pomalaa District, Kolaka Regency, Southeast Sulawesi Province

Yohanes Tampe Malem Sinuraya, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=9999920522789&lokasi=lokal>

Abstrak

Kompleksitas tektonisme bagian timur Pulau Sulawesi menyebabkan terangkatnya kerak Samudra Pacific ke atas kerak benua Pulau Sulawesi. Peristiwa ini menciptakan tersingkapnya batuan dasar berupa batuan ultramafik yang kaya akan nikel. Penelitian ini bertujuan untuk mengetahui prospek daerah penelitian terhadap endapan nikel laterit ditinjau dari aspek geologi berupa tipe batuan dasar dan geomorfologi. Penelitian diawali dengan mengklasifikasikan satuan geomorfologi yang kemudian dilanjutkan dengan pengambilan sampel batuan dasar. Analisis yang dilakukan berupa analisis petrologi dan petrografi, analisis statistik deskriptif, dan analisis geostatistika. Hasil penelitian didapati bahwa Sebagian besar daerah penelitian tersusun batu harzburgit dan lherzolit. Dari analisis geomorfologi ditemukan bahwa dominan daerah penelitian merupakan perbukitan rendah bergelombang dengan kemiringan lereng 10% hingga 25%. Perbedaan kadar Ni pada batuan harzburgit dan lherzolit pada daerah penelitian tidak memberikan nilai signifikan. Ketebalan saprolit paling tinggi ditemukan pada satuan perbukitan rendah dengan kemiringan landai, sementara limonit pada dataran rendah pedalaman dengan kemiringan lereng landai, dengan zona distribusi Ni dan ketebalan zona saprolit paling tinggi berada di sisi barat daerah penelitian.

.....The tectonic complexity of eastern parts of Sulawesi Island causes the lifting of the Pacific oceanic crust above the continental crust of Sulawesi Island. This event creates the exposure of bedrock in the form of ultramafic rocks which are rich in nickel. This study aims to determine the prospects of the research area for nickel deposits viewed from the geological aspects, especially from bedrock type and geomorphology. The research begins with classifying geomorphological units which is then followed by taking bedrock samples. The analysis comprise of petrological and petrography analysis, descriptive statistical analysis, and geostatistic analysis. The results showed that the study area mainly composed of harzburgite and lherzolite rocks. From the geomorphological analysis, it was found that the dominant study area was low undulating hills with a sloping slope of 10° to 25°. The difference in Ni content in harzburgite and lherzolite rocks in the study area did not provide a significant value. The highest thickness of saprolite is found in low hill units with a gentle slope, while limonite is found in inland lowlands with a gentle slope. Ni distribution zone and the thickness of the saprolite zone is highest on the west side of the study area.