

**Interpretasi Lingkungan Pengendapan Formasi Balikpapan dan Formasi
Kampungbaru Berdasarkan Data *Sounding* pada Area Tepi Sungai Dekat Pesisir
Balikpapan, Kalimantan Timur**

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ABSTRAK

Penelitian dilakukan di Balikpapan, Kalimantan Timur termasuk ke dalam Cekungan Kutai. Cekungan Kutai salah satu cekungan berumur Tersier yang paling ekonomis. Wilayah studi dilakukan kajian mengenai dinamika sedimentasi, analisis fasies dan lingkungan pengendapan. Untuk itu, perlu mendapatkan gambaran bawah permukaan sehingga dilakukan pengukuran menggunakan metode geofisika yaitu geolistrik teknik *sounding*. Daerah penelitian mempunyai rentang resistivitas 0,4-1635 Ωm . Di mana $\rho < 20$ Ωm diduga lempung, 20–70 Ωm diduga pasir, 70–300 Ωm diduga lapisan penutup, 70–200 Ωm diduga lanau, 200–400 Ωm diduga gamping, 400–800 Ωm diduga pasir kuarsa, dan $\rho > 800$ Ωm diduga batubara. Delineasi dinamika sedimentasi bergerak dari sisi Barat Daya menuju sisi Timur Laut. Analisis fasies dibagi menjadi empat satuan batuan, berturut-turut dari tua ke muda yaitu Satuan batugamping Balikpapan, Satuan batulempung pembawa lapisan batubara Balikpapan, Satuan batugamping Kampungbaru dan Satuan batulempung sisipan batupasir batubara Kampungbaru. Wilayah studi diendapkan pada lingkungan pengendapan transisi dan laut. Cekungan ini diharapkan mampu memberikan informasi mengenai teknik sipil dan dunia eksplorasi maupun eksploitasi untuk mendapatkan cadangan baru.

Kata kunci: Cekungan Kutai, *sounding*, delineasi dinamika sedimentasi, analisis fasies, lingkungan pengendapan

**Interpretation of the Sedimentary Environment in the Balikpapan Formation
and Kampungbaru Formation Based on Sounding Data in the River Bank
Area Near the Coastal of Balikpapan, East Kalimantan**

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ABSTRACT

The study was conducted in Balikpapan, East Kalimantan included in the Kutai Basin. The Kutai Basin is one of the most economical Tertiary basins. The study area was conducted a study of the dynamics of sedimentation, facies analysis and sedimentary environment. For this reason, it is necessary to obtain a subsurface imaging so that measurements are made using the geophysical method, namely geoelectric sounding techniques. The study area has a resistivity range of 0,4-1635 Ωm . Where resistivity $\rho < 20 \Omega\text{m}$ is suspected to be clay, 20–70 Ωm is suspected to be sand, 70–300 Ωm is suspected to be *top soil*, 70–200 is suspected to be silt, 200-400 Ωm is suspected to be limestone, 400-800 Ωm is suspected to be quartz sandstone and $\rho > 800 \Omega\text{m}$ is suspected coal. Delineation of sedimentation dynamics moves from the Southwest to the Northeast. The facies analysis is divided into four rock units, successively from old to young, the Balikpapan limestone unit, the Balikpapan coal bearing claystone unit, the Kampungbaru limestone unit and the Kampungbaru coal sandstone inserts claystone unit. The study area was deposited in the transitional and marine sedimentary environment. The basin is expected to provide information on civil engineering and the world of exploration and exploitation to obtain new reserves.

Keywords: Kutai Basin, sounding, sedimentation dynamics delineation, facies analysis, sedimentary environment