

ABSTRAK

GEOLOGI DAN HUBUNGAN SEDIMEN PEMBAWA LAPISAN BATUBARA TERHADAP KUALITAS “SEAM C DAN D” FORMASI MUARA ENIM, DAERAH TANJUNG TELANG, MERAPI BARAT, LAHAT, SUMATERA SELATAN

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Penelitian ini berlokasi di Tanjung Telang, Merapi Barat, Kabupaten Lahat, Provinsi Sumatera Selatan. Daerah ini termasuk dalam Formasi Muara Enim yang berkembang luas pada lingkungan pengendapan deltaik dan dikenal memiliki potensi batubara ekonomis. Tujuan penelitian adalah mengkaji geologi serta hubungan antara sedimen pembawa batubara dengan kualitas batubara *seam C* dan *D*. Geomorfologi wilayah dibagi menjadi bentuk asal denudasional dan antropogenik. Analisis dilakukan dengan menggunakan data permukaan dan bawah permukaan, yaitu *log gamma ray* dan *log density* untuk interpretasi litologi, analisis elektrofases untuk penentuan fasies dan lingkungan pengendapan, serta data analisis proksimat batubara. Stratigrafi daerah terdiri atas Satuan Batulempung Muara Enim (Miosen Tengah–Akhir) dan Endapan Aluvial. Lingkungan pengendapan dibagi menjadi *upper* dan *lower delta plain*, yang berpengaruh terhadap kandungan sulfur batubara. Seam C terbentuk pada lower delta plain dengan kandungan sulfur tinggi 1,56% dan abu 3,45%, sedangkan seam D pada upper delta plain memiliki sulfur rendah 0,45% dan abu 1,73%. Berdasarkan kualitasnya, seam C tergolong *subbituminous B*, dan seam D termasuk *subbituminous A*.

Kata kunci: Batubara, Sedimen Pembawa, Lingkungan Pengendapan, Formasi Muara Enim, Kualitas Batubara

ABSTRACT

GEOLOGY AND THE RELATIONSHIP BETWEEN COAL-BEARING SEDIMENTS AND THE QUALITY OF “SEAM C AND D” MUARA ENIM FORMATION, TANJUNG TELANG AREA, WEST MERAPI, LAHAT, SOUTH SUMATERA

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This research was conducted in the Tanjung Telang area, Merapi Barat District, Lahat Regency, South Sumatra Province. The area is part of the Muara Enim Formation, which extensively developed in a deltaic depositional environment and is known for its economic coal potential. The aim of this study is to examine the geology and the relationship between coal-bearing sediments and the coal quality of seam C and seam D. The geomorphology of the study area is classified into denudational and anthropogenic origin landforms. The analysis was carried out using both surface and subsurface data, including gamma ray and density logs for subsurface lithological interpretation, electrofacies analysis to determine facies and depositional environments, and coal proximate analysis data. The stratigraphy of the area consists of the Muara Enim Claystone Unit (Middle to Late Miocene) and Alluvial Deposits. The depositional environment is divided into upper and lower delta plain systems, which influence the sulfur content of the coal. Seam C, deposited in the lower delta plain, has a high sulfur content of 1.56% and ash content of 3.45%, while seam D, formed in the upper delta plain, has a lower sulfur content of 0.45% and ash content of 1.73%. Based on its quality, seam C is classified as sub-bituminous B, and seam D as sub-bituminous A.

Keywords: Coal, Coal-Bearing Sediments, Depositional Environment, Muara Enim Formation, Coal Quality