

ABSTRAK

KARAKTERISTIK LAPISAN PEMBAWA BATUBARA DAN LAPISAN BATUBARA FORMASI MUARAENIM BERDASARKAN WELL LOGGING DI DAERAH BANKO, KECAMATAN LAWANG KIDUL, KABUPATEN MUARA ENIM, SUMATERA SELATAN

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Telah dilakukan penelitian lapisan pembawa batubara pada Formasi Muaraenim dengan menggunakan metode geofisika *well logging*. Penelitian dilakukan di Banko, Kecamatan Lawang Kidul, Kabupaten Muara Enim, Provinsi Sumatera Selatan selama dua bulan.

Penelitian menggunakan data *well logging* yaitu *gamma ray log* dan *density log* dari hasil pemboran sebanyak tiga titik bor. Penelitian dilakukan dengan menganalisa defleksi kurva *well logging* serta menghitung harga indeks *gamma ray* dan volume *shale*. Pada penelitian ini juga dilakukan rekonsiliasi antara data bor dan *well logging*, yaitu pengumpulan dan pencocokan antara kedua data tersebut.

Dari penelitian secara umum lapisan pembawa batubara berupa batulempung dengan volume *shale* berkisar antara 0.340 – 0.883 % dan densitas 400 – 1806 cps, batupasir dengan volume *shale* berkisar antara 0.193 – 0.449 % dan densitas 300 – 670 cps. Nilai volume *shale* batubara berkisar antara 0 – 0.087 % dan densitas 760 – 2154 cps. Lapisan pembawa batubara memiliki nilai volume *shale* dan densitas yang cenderung menurun terhadap kedalaman

Kata kunci : *Well logging*, *gamma ray log*, *density log*, *caliper log*, lapisan pembawa batubara dan lapisan batubara.

ABSTRACT

*COAL BEARING STRATA AND COAL LAYER CHARACTERISTIC
ON MUARAENIM FORMATION BASED ON WELL LOGGING
IN BANKO, KECAMATAN LAWANG KIDUL, KABUPATEN MUARA ENIM
SOUTH SUMATERA*

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Coal bearing strata was researched in Muaraenim Formation with used well logging geophysics method. Survey area around in Banko Kecamatan Lawang Kidul, Kabupaten Muara Enim, South Sumatera Province during two months.

The research use well logging data which gamma ray log and density log drilling result of three drilling spot. Research conducted with analysing curve deflection of well logging and also calculate an index gamma ray, volume of shale. At this research also conducted reconciliation between drilling data and well logging, that is adaptation and gathering between both data.

From the result in general coal bearing strata is a claystone with volume shale between 0.340 – 0.883 % and density 400 – 1806 cps, sandstone with volume shale between 0.193 – 0.449 % and density 300 – 670 cps. volume shale value of coal between 0 – 0.087% and density 760 – 2154 cps. Coal bearing strata has a shale volume and density value relatively decrease of depth improvement.

Keyword : Well Logging, gamma ray log, density log, Muara Enim Formation, drilling log, and coal bearing strata.