

ABSTRACT

ANALYSIS DENSITY LOG DATA RELATIONS WITH CALORIES, TOTAL MOISTURE AND ASH CONTENT ON COAL LAYER IN REGIONAL WEST BANKO, LAWANG KIDUL SUB-DISTRICT, MUARA ENIM REGENCY, SOUTH SUMATERA PROVINCE

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The research was located in the west of banko area in Lawang Lidul Sub-Districts, Muara Enim district, South Sumatra Province. In geogafis was located at $3^{\circ}42'30''$ - $4^{\circ}47'30''$ LS and $103^{\circ}45'$ - $103^{\circ}50'10''$ BT. Being in 247 km muara enim district was located on the southwestern Palembang, 520 km east of Bengkulu. This research method using well logging with drill point as much as 5 point drill. the purpose of this research is the characterization of the relationship of density log data with the calories, total moisture and ash content in coal layer, the western area of banko Lawang Kidul Sub-district, Muara Enim Regency, South Sumatra Province. The result showed characteristic of coal in the research area having flatened value of density 1,50 gr/cc total moisture 25,21 %, calories 6193,11 cal/g and ash content 2,69 %. By using the trideline scatterplot bivariant method used to get relations correlation of 2 variables, whereby on the research area having strong relations very strong. From the results of the relationship between density and total moisture has a positive variation of $R^2 = 0,767 = 70.7\%$. The relationship between density and calorie with positive $R^2 = 0,683 = 68.3\%$. The relationship between density and ash content have a variety of negative $R^2 = 0547 = 54,7\%$. The relationship between Calorie and ash content of relationship with positive variations have $R^2 = 0,596 = 59.6\%$. the relationship between volume shale and ash content with positive variation have $R^2 = 0,7617 = 76,17\%$. The corelation from that, the coal on the reasech field has good quality with calorie value > 6.100 cal/g

Keywords: well logging, log, density log, total moisture, calories, ash content