

ABSTRACT

COAL QUALITY ANALYSIS BASED ON THE WELL LOGGING DATA TO DETERMINE THE COAL QUALITY DISTRIBUTION IN KUTAI REGENCY, EAST BORNEO PROVINCE

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The research have been done on coal seam in Maluwi formation used well logging method with the total of 30 wells. The research location was at Karang village, Sangkulirang district, East Kutai regency, East Borneo province. The purpose of this research are to analyze the quality of coal by finding the relationship between the well logging data with the proximate analysis and by finding the distribution of coal quality.

There are some processes was do on this research, that are interpreted from well logging data, wells correlation and 3D modeling of coal seam, cross plotting between well logging analysis data, i.e volume shale and density with the result of coal proximate analysis, i.e ash content, calorific value and total moisture. Thus, we got the distribution of coal quality at each seam.

The relationship between the volume of shale with ash content was proportional, which is the greater the volume of shale content in the coal, then ash content levels will also increase. The relationship between density with calorific value was proportional, which is the greater the coal's density, then calorific value levels will also increase. While, the relationship between the density with total moisture was inversely, which is the greater the volume of shale content in the coal, ash content levels will also decrease. The value of ash content is ranging from 1 – 13 %, the calorific value is ranging 4000 – 6000 Kcal / kg, and the value of total moisture is ranging 0 – 3%.

Keywords : *Well Logging, Proximate, Quality, Coal*