

ABSTRACT

BUILD A MODEL OF GEOMETRY OF COAL SEAM BASE ON WELL LOGGING DATA IN THE AREA MUARABUNGO, JAMBI

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A coal well-logging acquisition was done in muarabungo, Jambi province. The acquisition has a result of 19 drill points with a different separation distance of each drill points.

This survey used the combination of gamma-ray log, density log, and caliper log. The well-logging recorded result shown in curve shape and the lithology interpretation was done after. The lithology interpretation result of each drill point was correlated with an orientation in line with strike and cross the strike in shape of geology section. Besides of that, an analysis was done based on density and Vshale parameter, density analysis used density log which converted into gr/cc into chart with the depth as Y axis and X axis filled with the value of lithology's density, also with vshale which acquired from the calculation of gamma ray value shown into chart with the depth as the Y axis and vshale value as the X axis.

From the lithologi interpretation known that the lithologi dominated with claystone layer as the floor, coal layer, siltstone layer as the roof, and sandstone layer in top. The lithology develops from west to east and subdued to southeast. Based on the characteristic of density value of coal-bearing lithology shows there's an improvement as the depth increases caused by an imposition event, claystone improved form 2.075 to 2.006 gr/cc, coal layer 2.04-2,198 gr/cc, siltstone layer from 2,392-2,692 gr/cc dan sandstone layer from 2,121-2,698 gr/cc. Vertically the characteristic of Vshale tend to decrease as the depth decrease but it's not continous and form 5 pattern of decrease, the first pattern 0,316-0,175, the second pattern 0,216-0,097, the third 0,251-0,035, the fourth 0,274-0,046, and the fifth pattern 0,119-0,036. the decrease of vshale value which not continous shows there's a different sedimentation phase caused by different current power.

Keywords: *Characteristic, Density, Develop, Gamma ray, Vshale*