ABSTRACT

QUANTITATIF ANALYSIS OF DENSITY ON QUALITY OF COAL SEAM PG-07 AT BALIKPAPAN FORMATION USING *LOG INSIDE CASING* METHOD SEPARI REGION, KUTAI KARTANEGARA REGENCY, EAST BORNEO PROVICE

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Well logging measurements have been carried out with the method of data acquisition Log Inside Casing. Data acquisition carried out on 34 bore hole in Balikpapan Formation, Separi Region, Kutai Kartanegara Regency, East Borneo Provice. This research aims to know the differences between the density of the measuring result methods of data acquisition Log Inside Casing and Log Outside Casing as well as to know the connection of coal density measurement result Log Inside Casing with coal quality.

Data processing was undertaken starting with the interpretation of well logging graphics to separate of rock lithologi formation assisted with the core data and geology model of the research area. Then do the calculation to determine coal density of research area, then a different test done to find out different between the coal density of Log Inside Casing and Log Outside Casing. As well as done a Cross Plot, different test and correlation test to know the connection between coal density and coal quality.

The results obtained are differences in the density Log Inside Casing with average of 1,7 gr/cc and Log Outside Casing with average of 1.39 gr/ cc. There are also differences between the density of Log Inside Casing is 1,75 gr/cc and Relative Density is 1,34 gr/cc. Based on the results of Cross Plot between coal density of Log Inside Casing with coal quality showed a strong correlation in variables. Between total moisture and density showed a negative correlation with R^2 = 0.674. Between volatile matter and density showed a negative correlation with R^2 = 0.6416. The connection between the density and calori value showed positive correlation with R2 = 0.5946. Between density and ash ontain have negatif correlation with R2 = 0.532.

Keyword: Well logging, Log Inside Casing, Log Outside Casing, coal density, coal quality, Cross Plot.