ABSTRACT

RESERVOIR ANALYSIS IN "FRL" FIELD AT TALANGAKAR FORMATION, SOUTH SUMATERA BASIN WITH SEISMIC MULTI-ATTRIBUTE

By

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Seismic multiattribute analysis is one of statistical method using more than one attribute to predict some physical properties of the Earth. In this analysis, the relationship between the logs with seismic data at the well site and use these relationship to predict or estimate the volume of logs property at all locations on the seismic volume. Seismic attributes are used to attribute amplitude, frequency, and time. This multiattribute analysis using the linear regression method with step- wise regression technique. This method can help identify reservoir seen from the log data validation, crossplot value, as well as the results of gamma ray map slicing, density, p- wave, and neutron porosity in the interest zone at FRL field. Slicing the target area taken by large window by taking the average value between the distribution of sand and shale based window target (marker W3c- X0). Based on the value of gamma ray, sandstone distribution in the area of low gamma ray with a range of 20 to 45 API and denisty value in the low density area with a range of 2.2- 2.38 g/cc, whereas to see the value of the neutron porosity and p - wave must be accompanied also by looking at the value of the gamma ray and density in the slice passing through wells, NR- 1, NR- 3, NR- 5, and NR- 7, because the value of the porosity and velocity, sandstones and shales are almost the same. Neutron porosity values with a range of 15- 20 % and the value of the p- wave between 3428- 3740 m/s. Deposition NR target zones from the north to the west (NE-SW) which is a sand distribution with deposition type is distributary channel that can be identified from the deflection of gamma ray log value in the W3C to X0 target zone.

Keywords : Seismic attribute, seismic method, multi-attribute, deposition zone.