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Rock Property Calculation for Determine Hydrocarbon Zone Based on Petrophysical Principal and Sequence Stratigraphic Correlation in Blok M

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Abstract : The purpose of this study is to identify rock zone containing hydrocarbons with calculating rock property includes volume shale, total porosity, effective porosity and water saturation. Identification method rock property based on GR log, resistivity log, neutron log and density rock. Zoning is based on sequence stratigraphic markers that are sequence boundary (SB), transgressive surface (TS) and flooding surface (FS) which correlating ten well log in blok “M”. The results of sequence stratigraphic correlation consist of eight zone that are two LST zone, three TST zone and three HST zone. The result of rock property calculation in each zone is showing two LST zone containing hydrocarbons. LST-1 zone has average volume shale (Vsh) 25%, average total porosity (PHIT) 14%, average effective porosity (PHIE) 11% and average water saturation 0,83. LST-2 zone has average volume shale (Vsh) 19%, average total porosity (PHIT) 21%, average effective porosity (PHIE) 17% and average water saturation 0,82.

Keywords : hydrocarbons zone, petrophysic, rock property, sequence stratigraphic
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