ABSTRACT

SANDSTONE RESERVOIR CHARACTERIZATION USING SEISMIC INVERSION ACOUSTIC IMPEDANCE IN THE FIELD “RDW”, SOUTH SUMATERA BASIN

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Has been done the reservoir characterization of the field “RDW”, South Sumatera Basin, using seismic inversion acoustic impedance. The objective of the research is to characterize reservoir using application of seismic inversion method. This research using model based inversion method with 2D Post stack seismic data with 2 line and 3 well data including log data of direct measure in the field and formula, such as gamma ray log, density log, neutron porosity log, resistivity log, P-wave log, SP log, porosity log, P-impedance log, and marker data information in this area. In crossplot analysis can be saw that in research area, there is reservoir sand and shale distribution. But, Its difficult to make separation between sand and shale, because formation of this research area get dominant shale with a lot of sand. Sand is target zone in this research, because in the porous zone is showing high resistivity. According to inversion result of AI, can be saw in AN1 well that rock of sand reservoir which have low AI that see on porous zone at A line in yellow to red about 6798 - 8066 m/s *g(cc) and at B line about 6182 - 7470 m/s *g(cc) which located between BRF horizon (green) to TAF (orange).

Keyword : AI Inversion, Sand, Reservoir characterization.