

INTISARI

IDENTIFIKASI PERSEBARAN ZONA POTENSIAL RESERVOIR BATUPASIR MENGGUNAKAN INVERSI IMPEDANSI AKUSTIK DAN DENSITAS PADA FORMASI TALANG AKAR, LAPANGAN “BIMASAKTI”, CEKUNGAN SUMATERA SELATAN

Oleh:

Bimas Herpi Pramuditya
20/462133/PA/20105

Lapangan BIMASAKTI berada pada Cekungan Sumatera Selatan dimana merupakan Lapangan minyak dengan reservoir berada pada Formasi Talang Akar. Formasi ini memiliki umur Oligosen hingga Miosen dengan lingkungan pengendapan *fluvio-deltaic*. Penelitian ini menggunakan analisis inversi impedansi akustik dan densitas untuk melihat zona persebaran batupasir dan zona potensial reservoir batupasir. Penelitian ini menggunakan data seismik 3D *PSTM* dengan empat buah data sumur. Hasil dari penelitian didapatkan zona persebaran batupasir pada lapisan TAF-TRM mempunyai nilai persebaran impedansi akustik berkisar 6.500 ((m/s)*(g/cc)) hingga 7.500 ((m/s)*(g/cc)) dan persebaran nilai densitasnya berkisar 2,1 (g/cc) hingga 2,3 (g/cc) dengan luasan total persebaran batupasirnya sebesar 1.885.274 m². Hasil analisis zona persebaran batupasir didapatkan pada lapisan TAF-GRM memiliki persebaran nilai impedansi akustik berkisar 7.800 ((m/s)*(g/cc)) hingga 9.000 ((m/s)*(g/cc)) dan persebaran nilai densitasnya berkisar 2,3 (g/cc) hingga 2,4 (g/cc) dengan luasan total batupasir sebesar 3.793.356 m².

Kata Kunci : Cekungan Sumatera Selatan, Inversi Berbasis Model, Formasi Talang Akar

ABSTRACT

IDENTIFICATION OF POTENTIAL ZONE DISTRIBUTION OF SANDSTONE RESERVOIR USING ACOUSTIC IMPEDANCE AND DENSITY INVERSION IN TALANG AKAR FORMATION "BIMASAKTI FIELD", SOUTH SUMATERA BASIN

Oleh:

Bimas Herpi Pramuditya
20/462133/PA/20105

The BIMASAKTI Field is located in the South Sumatra Basin, which is an oil field with a reservoir located in the Talang Akar Formation. This formation has an *Oligocene* until *Miocene* age with a fluvio-deltaic depositional environment. This research uses acoustic impedance and density inversion analysis to look at sandstone distribution zones and potential sandstone reservoir zones. This research uses 3D *PSTM* seismic data with four well data. The results of the research showed that the sandstone distribution zone in the TAF-TRM layer had acoustic impedance distribution values ranging from 6.500 ((m/s)*(g/cc)) to 7.500 ((m/s)*(g/cc)) and the distribution of values The density ranges from 2,1 (g/cc) to 2,3 (g/cc) with a total sandstone distribution area of 1.885.274 m². The results of the sandstone distribution zone analysis showed that the TAF-GRM layer had a distribution of acoustic impedance values ranging from 7.800 ((m/s)*(g/cc)) to 9.000 ((m/s)*(g/cc)) and a distribution of density values ranges from 2,3 (g/cc) to 2,4 (g/cc) with a total sandstone area of 3.93.356 m².

Keywords : South Sumatra Basin, Model Based Inversion, Talang Akar Formation