

**Paper 19****Integration of sequence stratigraphy and reservoir management to optimise oil development at Tabu****MOHD RAJI**

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The Tabu Field is a small oil field discovered in 1978. The structure is a simple east-west trending compressional anticline in the Palas-Guntong-Tabu trend. The field is segmented by two N-S trending normal fault systems into 3 fault blocks; east, central and west. The main reservoirs are the Miocene I-25 and I-35 sandstones which contribute as much as 75% of the Tabu-B conformable proved plus probable reserves. The east fault block at Tabu Field was first developed in 1983 from the Tabu-A platform. In 1986 a 3D seismic survey was acquired over the field which provided a good subsurface image of the reservoir sandstones.

The I-25 sandstone reservoir package is composed of the I-30 highstand and the I-25 lowstand sequences. The I-30 highstand, interpreted to be deposited in a deltaic environment, is overlain by fluvial rocks of the I-25 lowstand. Several meters above the I-25 reservoir lies a thin and minor I-23 lowstand sandstones. The interpreted sequence boundary at the base of the I-25 lowstand separates a sand-dominated package above from the mud-stone package below. Seismic attributes calibrated to physical properties from log data were used to generate a new pay sandstone map over the I-25 oil reservoir interval. Results indicated that the absolute amplitude has a high correlation coefficient with physical properties from well data and the map was used as predictive tool for the development wells.

Tabu-B development was begun in 1995 with less than 50% of the reserves in the proven category. The high development cost at Tabu B made it a marginal project to development in this low oil price environment. This paper describes how the use of a multi-disciplinary team approach turned this marginal development into a cost effective endeavour. The use of sequence stratigraphy and seismic attributes as well as innovative solutions in reservoir engineering and drilling technologies were the key ingredients in this successful development.