The Challenges of Seismic Stratigraphic Model in the Deep Water Potential Breakthrough, Moattama Basin, Offshore Myanmar

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ABSTRACT

To understand the relationship between sediment depositional processes and the controlling factors on these processes is very useful in oil and gas exploration. To achieve this, seismic sequence stratigraphic analysis can be used to determine the evolution of depositional environments. Integration of observations from seismic and well data can be used to identify the reservoir distribution and the inter-relationships of sediments, which are significant factors in defining prospects in the area of investigation. As an example of this type of analysis, a seismic sequence stratigraphic study in the deepwater potential of the Gulf of Moattama was carried out. The primary objective was to define reservoir distribution within the Plio-Pleistocene prograding deltaic sediments which overlay the main reservoir in the area, the Miocene carbonates. The study area included two wells, a grid of 2D seismic data and 3D seismic data from a nearby area. The two wells have a full set of log data and biostratigraphic control. This research focused on the interpretation of 2D seismic data which consists of 41 east-west, and 25 north-south seismic lines. However, 2D seismic data is inadequate for detailed study of sequence stratigraphy because of poor data quality and low seismic resolution. Thus, 3D seismic data from nearby areas needs to incorporated with this study in order to enhance the seismic information that might be subtle in 2D seismic data and lead to better understanding for more accurate interpretation.