

Myanmar Central Burma Depression, Pyay Basin. New 2D Seismic Helps Understanding of the Basin Structural History - Implications on CAOG block MOGE4 Prospectivity

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ABSTRACT

The MOGE4 Block, operated by CAOG (part of the Berlanga Group) is situated on the western flank of the fore-arc Tertiary Prome Embayment, bordering the Arakan Yoma mountain range. It is a transition zone with a total sediment thickness of approximately 4 km at the eastern edge of the block and formations gradually outcropping to the west, down to the Eocene and possibly older formations. Directly to the east of the block lies the Htantabin suspended gas and condensate field and slightly further east can be found the Myanaung and Pyay gassy oil fields and Shwepyitha gas condensate field. There is a clear indication that hydrocarbons are charged from the east from the deep Prome Embayment kitchen. Reservoirs for the above fields are mostly from the Late Miocene Kyaukkok and Obogon sandstones, within structural traps sealed by intraformational shales. The Htantabin Field is a notable exception with hydrocarbons found in the Lower Miocene Pyawbwe limestone lenses / shoals, within combination stratigraphic-structural traps, encased in Pyawbwe marine shales. The main structures in the area are asymmetrical anticlines associated with transpressional strike-slip caused by the ongoing northern translation and clockwise rotation of the Burma Platelet, following the highly oblique collision with the India Plate, subducting under the Eurasia and Sunda plates. Acquisition of new 2D seismic data in early 2016 has provided the basis of a renewed evaluation of the prospectivity of the block, with the introduction of a new play compared to the adjacent blocks and shedding some light on the tectonic and depositional history in the area.