Moattama Basin - M5 & M6 Blocks, Thermogenic Petroleum System, from Miocene Source Rock to Volcanic and Carbonate Reservoirs, Its Driver and Mechanism Controlling the Distribution of Reservoir Pressures: a Detailed Analysis using Wells and New 3D Data

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Abstract

M5-M6 blocks are located offshore Myanmar within Moattama basin, south of Ayeyarwaddy delta. On these Blocks, Yadana and Sein gas fields operated by TOTAL E&P Myanmar with their Partners PTTEP, Chevron and MOGE are producing from Oligo-Miocene carbonates around 800 MMscft/d. Overlying Upper Miocene Badamyar sands are to be developed with first gas expected in April 2017. Both blocks cover contrasted geological environments, which have been differentiated along times by a multi – phased structural evolution, well documented along the East-West direction. The synthesis of Shale and Reservoir pressures altogether, from wells, extended on the whole M5-M6 Blocks via comprehensive 2D and 3D seismic data, lead to a global geological model of charge, migration, distribution of pressures and trapping, mainly in carbonate bodies in / above volcanics. As such, it opens in a wide area recently covered by 3D a significant remaining Exploration Petroleum Potential, complex but attractive.