

## **Timpan Discovery: unlocking DHI play in the Late Oligocene Bampo Sandstone Formation in Andaman Sea, Indonesia**

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Andaman II PSC is located in the offshore Andaman Sea, approximately 100 km to the north of Aceh Province, Indonesia. Legacy seismic 2D lines acquired from 2006 to 2012 across the block showed early indications of DHI anomalies in a series of structures at Late Oligocene Bampo Sandstone Formation. Several offset wells within the area were drilled through Bampo Sandstone Formation with only one significant discovery, followed by sub-commercial and dry well result.

While the offset wells result was varied, the presence of DHI from seismic 2D lines led to the initiation of the Multi-Client 3D seismic acquisition conducted in 2019. The seismic survey covered around 10,000 sqkm across North Sumatra Basin, including 2,700 sqkm area within Andaman II PSC, continued with FWI PSDM seismic processing to the acquired seismic data. Seismic 3D PSDM confirmed the presence of DHI anomalies with prominent flat spot in many structures within the block, with Timpan prospect nominated as one of the potential drilling candidates. Several derisking studies were conducted around Timpan prospect including Gather Conditioning study that further improved gather flatness resulting in significant imaging uplift at Timpan prospect. Latest gather conditioned 3D seismic volume confirmed Timpan prospect as a four-way faulted structure, with a class II AVO anomaly and good conformance between DHI and the structure. 2D forward modeling was conducted to estimate the thickness of internal shale within the structure and further AVA modeling to estimate the gas saturation and porosity of the Bampo Sandstone reservoir. Timpan prospect was considered to have 31% Pg with significant 42% DHI uplift, resulting in a combined possibility of success number of 73%.

Timpan-1 well was subsequently drilled in the second quarter of 2022, found approximately 400 ft gas column at Bampo Sandstone and flowed 27 MMSCFPD gas and 1,800 BLPD condensate, making it the first major gas discovery at Bampo Sandstone within the area, opening up the Bampo Sandstone play in the region with several exploration wells drilled following the Timpan discovery.