



ORAL PRESENTATION

Exploration History of the Miocene Carbonate Play in Central Luconia, Offshore Sarawak – a World-Class Gas Province

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The Central Luconia geological province located in shallow waters approx. 100 miles offshore Sarawak is one of Malaysia's most prolific gas provinces with ongoing exploration, development, and production since the late 1960s. It spans an area of some 45,000 km² with current & produced volumes exceeding 65 TCF (~12 BBOE) in isolated carbonate platforms of Middle to Upper Miocene in age with approx. 200 individual platforms currently mapped. The shape, geometry and orientation of each platform vary from pinnacle-shaped km's scale features (e.g., B-11, Cili Padi-1, Timi-1 etc) to 10's km-scale mega platforms (e.g. Jintan, F-6, E-11) and appear linked to distinct structural domains.

Exploration activities began in 1968 by Shell with the first seven wells being unsuccessful before the discovery of the significant F6 gas accumulation in 1969 leading to a number of following discoveries and the subsequent development of the Malaysian LNG Sendirian Berhad (MLNG), Malaysia's first LNG plant in 1978. Several phases of exploration have continued with the most recent delivering a significant increase in the creaming curve for the play. Carbonate reservoir heterogeneities and gas contamination are key in production performance and commercial value respectively whilst critical exploration success factors remain charge focus and the hydrocarbon column length particularly in relatively narrow pinnacle-shaped features. In the last few years, new 3D broadband seismic data with improved regional coverage has largely confirmed the extent of many previously mapped platforms with the addition of some new features on the margins of the province and numerous smaller platforms. As a result, several key operators have launched well campaigns with recent outcomes continuing to challenge long-held paradigms on the carbonate play in Central Luconia. This includes the improvement of fast-track development for some discoveries and encouraging further exploration activity towards the perceived margins of the play.

SPEAKER BIOGRAPHY

Sofiyah is an Exploration Geoscientist in Shell Malaysia. She started in 2018, in the Asia Regional Ventures team after her postgraduate studies on carbonate sedimentology & stratigraphy, and since 2021 has been on the hydrocarbon maturation team for Sarawak. She is also currently pursuing a part time masters in renewable energy engineering at Heriot Watt University.