



## ORAL PRESENTATION

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### Exmouth Sub-Basin: New Data, New Insights

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The Exmouth Sub-basin represents part of the intra-cratonic rift system of the Northern Carnarvon Basin, Northwest Shelf, Australia. It has undergone a complex tectonic history with multiple phases of rifting, magmatic underplating, uplift, erosion, inversion and regional tilting.

Hydrocarbon exploration has resulted in the discovery of a variety of oil and gas accumulations mainly in Upper Jurassic and Lower Cretaceous intervals. However, the distribution of the different petroleum system elements, including Jurassic and Triassic intervals, is poorly determined but required for improved understanding of the complex charge history, as indicated by the variety of hydrocarbon types ranging from heavy, biodegraded oil, through light oil with gas caps to dry gas columns.

The new 12,000km<sup>2</sup> WesternGeco Multiclient 3D seismic survey was specifically designed to cover the entirety of the Exmouth sub-basin and incorporate the full acquisition record length in the processing sequence to image deeper basinal elements giving a comprehensive basin-wide coverage. As illustrated herein, the seamless volume imaged to depth allows accurate mapping across the full record length which is critical to unravel the complex evolutionary history in a basin with proven and remaining hydrocarbon potential.

#### SPEAKER BIOGRAPHY

Alex is the Exploration Lead for Australasia based in Perth. His role includes interpretation on depth imaging and reprocessing projects and also supporting the Exploration and Petroleum Systems Modelling Groups working on exploration campaigns and hydrocarbon assessment projects around the world. Since joining Schlumberger Alex has worked on multiple projects in varying geological settings including the Gulf of Mexico, North West Europe, North Africa and more recently in the Asia Pacific region, with a primary focus on the North West Shelf of Australia.