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## Campeche DW Blocks 1 & 3: Structural Complexity Styles, and Implications on Leads Identification and Portfolio Maturation

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### Summary

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The Campeche Basin in southeast Mexico encompasses several sub-basins from onshore to ultra-deepwater and holds some of the largest oil fields found in the Gulf of Mexico, including the super-giant Cantarell complex. In December 2016, the partnership of BP, Statoil & Total were awarded DW exploration Blocks 1 and 3. The partnership is evaluating the exploration potential on both blocks, which will inform a decision to drill.

Exploring the Mexican deepwater Campeche Basin comes with multiple challenges to unlock the hydrocarbon potential of the basin. Multiple tectonic events and deformation phases throughout the Tertiary have impacted the structural deformation history of the basin and led to the formation of numerous contractional structures.

Several potential hydrocarbon traps have been mapped and described in the deepwater and in the partnership's blocks. Identified trap types are structural, stratigraphic or a combination of both. Structural trap styles include salt-cored contractional anticlines, 3-ways against salt or faults, and thrust structures with single or multiple detachments. Stratigraphic trap styles include truncations against erosional unconformities, and stratigraphic pinch outs.

The purpose of this article is to share the current understanding of the degree of structural complexity of the traps in Blocks 1 and 3, the causes for the variation in structural styles and the deformation history of the traps. The impact of these learnings for leads identification, prospects maturation and the de-risking of the resources will also be highlighted.