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## Exploration Prospectivity in the Sharkiyah Region -SE of Block 42

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The area of interest is along the Eastern coast of Sharkiyah region. It is covered by old sparse 2D seismic with two drilled exploration wells (Ramlat Wahiba-1 and Jebel Fayah- 1). Geologically, the area is located between NNE-trending Huqf arch and the east coast deformation zone. The last exploration phase was taken by Compact on 1997.

Interpretation of seismic data along the flank of the Huqf Arch suggests the existence of Infra-Cambrian salt associated with structural depressions. This salt is believed to be part of the Ghaba salt basin that extends Northeastwards of Block 6.

The Permian- Mid Cretaceous platform of this part of Oman foreland basin has been tilted toward Huqf Arch due to the late Cretaceous carbonate emplacement which is responsible later on for creating angular unconformity between the platform carbonates and the younger Fiqa Formation. This structural/stratigraphic configuration may form potential trapping mechanism for hydrocarbons with good sealing capability provided by the Fiqa shale. Deeper Formations are more promising targets due to erosional level of the shallower sections.

The future exploration in the area of interest depends on better seismic imaging to define the above mentioned promising traps and to delineate untested plays analogous to productive plays of the proven Ghaba Salt basin. In addition the extension of the Ghaba salt basin from block 6 northwards into the interest area open up new exploration opportunities yet to be recognized.

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