

## **In Search of a New Play in the Infracambrian Petroleum System of the Bikaner-Nagaur Basin in Rajasthan**

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The Bikaner-Nagaur Basin in Rajasthan, India, is a proven petroleum basin with the potential for billions of barrels of additional reserves. The Basin has undergone two extensions and two compressions in the last 600 million years, preserving Precambrian structures that have filled with hydrocarbons during the Permian, sourced from Infracambrian rocks (the Marwar Supergroup). This hydrocarbon system is contemporaneous with and linked to the prolific and well understood Ghaba and Fahud Salt Basins of Southern Oman. The Oman province has been assessed at containing 11.3 billion bbls of recoverable oil.

A recent (2008) 1600sq km 3D seismic survey has enabled the exploration teams to view this exciting basin with new eyes, opening up the potential for deeper prospects in these ancient sediments in two exploration blocks located to the west and east of the Billion Barrel Baghewala Oil Field. The burial history of the deeper prospects on the flanks indicates that there is a greater chance of finding lighter oil in significant quantities in the Precambrian Jodhpur sands, with excellent preserved reservoir quality. Interpretation of the 3D seismic dataset leads us to believe that there may be preserved Pre-Cambrian sediment below what has been traditionally thought of as economic basement, but never fully explored. These deeper targets have never been penetrated but are to be added as a tertiary target in the first phase of exploration drilling.

The first exploration well, Rachan#1, was spud on April 21<sup>st</sup> 2010 with the main target being the Upper Carbonate and the Jodhpur Sandstone; this well is also targeting the deeper zones and the results will be incorporated into the presentation.