

## **New Hydrocarbons Plays at Southern Burgos Basin, México**

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The Burgos basin has previously been thought of as gas prone, but a new discovery in the southern part of the basin has opened a new play that includes both gas and 46°API light volatile oil. The Nejo-1 well discovered gas reserves and added oil to the exploration expectation from the Middle Oligocene. Nine shoreface sandstones have been tested recently which were deposited in deltaic systems not related to the Rio Grande Embayment, but to the ancient Rio Conchos depositional system, which is now uplifted in the foreland of the Sierra Madre Thrust Belt.

Estimated 3P reserves are larger than 320 Bcfg and could be improved as appraisal activities begins.

Modeling in the area indicates a Tithonian source for the oil and a generative kitchen far to the East. This implies long distances of lateral migration through pathways identified in Tertiary unconformities, which are connected to regional listric fault systems. Trapping is associated with the fault systems. Northeast of the Nejo area, two prospects have been recognized for the Lower Oligocene play with 2 MMBoe as P90 to 50 MMboe as P10 probable resource. Also another potential play in this area is the Upper Eocene Turbidites play, located to the south, at 4,000 m mean depth, where by paleontological data and seismic information a distal turbidite deposit is interpreted. Volumetrics on one structural trap identified with 2D seismic, is estimated in 1 MMboe as P90 to 20 MMboe as P10 potential resources.

Probability of geological success is medium to low in all of this area, and the presence and quality of reservoir rock is the main risk element to be considered.

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