

Recent Discovery of Gas in The Tertiary Basin of Veracruz, Apertura-Madera Area

Noe Loyo-Hernandez, Rosalio Razo-Rojas, Marcos Quesada-Dimas, and Rafael Muñoz-Vergara. *Activo Integral Veracruz, Pemex Exploracion y Produccion, Urano 420 Modulo E, Col. Ylang-Ylang, Boca del Rio, Ver, 94290, Mexico, phone: (52)229 989 2623, fax: (52)229 989 2623, nloyoh@pep.pemex.com*

With the drilling in August 2003 of the Apertura-1 and Madera-1 wells, gas producers wells in the Late Medium Miocene, two new reservoirs of dry gas in the Tertiary Basin of Veracruz, opening big expectations in the exploratory activity in this portion of the basin.

The area is located between the Angostura Field, producer of oil in the Buried Tectonic Front; and the Cocuite Field, producer of gas in the Tertiary.

Before the drilling of the Apertura-1 and Madera-1 wells, the gas potential in this sector was unknown, because there were not drilled wells, then the risk of the presence of the petroleum system was considered high, however the 3D seismic response has been once again the main support to define the traps and geologic model for the reservoir in this part of the Tertiary Basin.

The discovered reservoirs are located in turbidite sand bodies from the Upper Middle Miocene, related to frequently channelized surfaces of erosion which characterized the Middle Miocene in the Veracruz Basin

The Apertura- 1 well established gas production in two intervals, while Madera-1 was producer in the interval related to the objective, both with pressure above 5000 psi. In addition, these wells penetrated diverse sand bodies in the Upper Miocene and Lower Pliocene that may have hydrocarbon potential when we related them to the gas producing bodies E and F in the Cocuite Field.

The relevancy of these discoveries is that these reservoirs break the following paradigm in the basin: "The gas reservoirs of this age only have been found towards the structural trends". The migration pathway in this area are associated to a fault system produced by the Chiapaneco Tectonic Event.
