

The Importance the Burgos Gas Basin, Mexico

Miguel Angel Gomez Tapia, *Nacional Autonoma de Mexico, Universidad, Cuauhtemoc 103 int B-102, San Pedro Mártir, Tlalpan, Mexico, 14650, Mexico, phone: (52 55) 55738125, pumasunamfi@yahoo.com.mx, Fernando Perez Gonzalez, Nacional Autonoma de Mexico, Universidad, Av. Prolongacion Division del Norte, Andador 24 #10 Int 1, Residencial Villa Coapa. Del Tlalpan, Mexico, 14390, Mexico, and Javier Arellano Gil, Petroleum Geology, Nacional Autonoma de Mexico, Universidad, Av. Universidad #3000 Circuito Interior Ciudad Universitaria, Facultad de Ingenieria, Mexico, 04510, Mexico.*

Burgos is the first non-associated gas basin in Mexico, it covers an area of 50,000 km². The origin of the Burgos Basin is associated to the opening of the Gulf of Mexico during the Jurassic starting the sedimentation in the Callovian with evaporites deposit. The sedimentation conditions changed in the Cenozoic, when a great regression occurred, and a thick sequence of at least 8000 meters of thickness with a great gas potential was accumulated represented by rocks with Type III Kerogen. One of the principal areas of gas reservoirs is the Arcabuz-Culebra that contains the Wilcox Play of Lower Eocene age; it was discovered in 1956 and nowadays as the result of reactivation, provides 40% of the production in the basin per day. The growing demand for natural gas had generated actions by PEMEX to increase the production. An important condition is to improve the knowledge of the sedimentation model and structure of the basin, which is obtained with the acquisition and processing 3D seismic data.

Geological analogies with the south of Texas have provided data to compare and thus obtain information about the gas potential of the Burgos Basin. The fourth district from the south of Texas exceeds 28 times the number of wells drilled in the Burgos Basin, from these wells 9,299 resulted producers, against 800 in Burgos, suggesting that the gas potential of the Burgos Basin could be at least 16% higher. That's, the importance of the Burgos Basin in the development of the Mexican economy.
