

STRUCTURAL ANALYSIS OF THE WEST OF ALBACORA FAULT SYSTEM, CAMPOS BASIN (SOUTHEASTERN BRAZIL)

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The West of Albacora Fault System is about 300km², surrounded by the oil fields of Albacora, Moreia and Vermelho, Campos Basin, Brazil. It is located in a prominent basement regional high, active since, at least, the Early Cretaceous time. It is considered that structural reactivations of this high, as well as the faults of the pre-rift and syn-rift sequences, have been driving the evolution of the post-rift structures and, possibly, the continental shelf break. A strong extensional deformation occurs in the post-rift sequence resulting in a complex system of North-South antitetic and syntetic, planar and listric normal faults. Full grabens are the most impressive features. It must be emphasized that, in one of these grabens, the sediments from Miocene age lie directly over Albian evaporites - a single event in Campos Basin. The basinward salt migration and its relationships with the basement high are the key factors on the extensional features development. Despite the main tectonism being extensional, strike-slip movements played an important role in the final evolution of the Fault System. Analogue laboratory models were conducted to reproduce the structures as it is interpreted in the seismic profiles. The fault geometry for the analogues, was provided by interpreted seismic profile and its correspondent balanced geological section. The studied area is a good example that complex structural interactions have occurred in Campos Basin, differently from simple models usually assumed.