Geophysical Research Abstracts, Vol. 9, 00425, 2007
SRef-ID: 1607-7962/gra/EGU2007-A-00425

Structural evolution of the basement and salt structures activity by using of 3D models in Firouzabad area, Zagros

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The study area is located in Zagros simply fold belt, south of Firouzabad, Fars. We have considered sedimentary basin floor deformation, initial time of folding and salt plug upwelling, by using of isopac data. Also, these data can used for indicated of expanding development. We have used National Iranian Oil Company isopac data from Permian to Miocene age. If isopac data value be reversed and the 3D patterns calculated, it can show sedimentary basin floor shape. According to 3D patterns, sedimentary basin evolution pattern, primary time of salt plugs movements and basement faults movement in firouzabad area has been obtained. Mengharak basement fault with N-S trend activated with vertical displacement in the Permian and its movement have changed left lateral strike slip after Triassic. Also, extensional structures formed in the east of Mengharak fault zone and continue to middle cretaceous. At the same time, Neothetys closed and the extension structures be converted to compression structures and also Mengharak fault movement have changed to right lateral strike slip. 3D models are showed that salt plugs activity (Jahani and Firouzabad) began in Permian and its activation have increased cretaceous in the Mengharak fault zone.