

Structural Development of the Plates Collision Zone Between Indian Plate and Afghan Block in Pakistan

Muhammad Iqbal¹, Moin Raza Khan¹, and Dietrich Bannert²

¹Pakistan Petroleum Ltd., Pakistan

²Consultant, Germany

Abstract

Starting during Late Cretaceous the oblique collision of the Indian Plate with the Afghan Block resulted mainly in shear along N-S oriented strike-slip faults in the south which changed to obduction and thrusting along the northern part of the Indian Plate. The oblique collision finally buried the northern part of the Indian Plate beneath the Himalayan thrusts, generally oriented in an E-W direction. The sea-floor of Tethys II underwent severe deformation during the collision and was segmented from south to north into the Bela, Muslimbagh and Zhobophiolites and finally into Waziristan-Igneous Complex.

This paper discusses major lithological and structural units, structural style and tectonics of the collision zone in Pakistan. Findings of this paper will greatly facilitate E & P companies, academia and researchers in unraveling the structural style of the strike-slip and compressional margins of the Indian Plate sedimentary cover.