

LATE MESOZOIC AND CENOZOIC EVENTS OF VIETNAM CONTINENTAL SHELF

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Vietnam Continental Shelf is characterised by complicated geological structures, which are related to evolution of the East Vietnam Sea (South China Sea) during the Late Mesozoic - Cenozoic stages. ? The basement coherence of the Tertiary Basins is presented by Late Jurassic and Cretaceous foreland red beds and pluton-volcanic complexes of continental crust type after the closure of Late Mesozoic Tethys Ocean. Some basement highs were formed by Paleocene-Eocene pre-rift events. ? The Oligocene rifting/spreading process with formation of sedimentary basins was characterised by lacustrine and deltaic sediments in the graben and half-graben structures. Some of these sediments could be important clastic reservoirs and others may be source rocks or cap-rocks. ? The Miocene post-rift sagging with widening and subsidence of the basins was dominated by deposition of deltaic and marine sediments. Several clastic and carbonate sequences contain good reservoirs, and some comprise source rocks and regional top-seals. ? Late Miocene – Early Pliocene inverse phase is depicted by structural folding, erosional unconformities, and local flower-structures. Pliocene-Quaternary peneplanation is characterised by large horizontal sequence on all continental shelf of Vietnam. But in some places there are mud diapirs and volcanic basalt activities. The geological events on the continental shelf of Vietnam during the Late Mesozoic to Cenozoic period are related to formation and evolution of the East Vietnam Sea. These events were important for generation of the hydrocarbon basins of Vietnam.