

Sub-Basalt Hydrocarbon Prospectivity in Kerala-Konkan Offshore Basin, India : A Basin Modeling Approach

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In this paper, we have put together a comprehensive understanding of the regional tectonic setup developed by integrating regional, seismic, well information and plate tectonic reconstruction studies to provide a basis for a robust petroleum system analysis in Kerala-Konkan (KK) offshore basin, India. A number of 1D models and a regional 2D model were built and simulated in the KK offshore region. The sub-basalt hydrocarbon prospectivity was then evaluated from the different types of modeling input scenarios (outcome of the regional assessment). The hydrocarbons are considered mostly to be in the gas window (of course in different depth ranges) as it is evident from high basalt heat flow and process of rifting.