Developing Regional Tectonostratigraphic Models for Hydrocarbon System Evaluation in the External Dinarides and Hellenides

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ABSTRACT

The Dinarides – Hellenides are a southwest verging orogenic belt that has resulted from the subduction of two branches of the Neotethys Ocean and the continental lithosphere of Adria beneath Eurasia. Hydrocarbon production and/or field development in Albania, Croatia and Greece, as well as analogues in Italy, prove the existence of multiple petroleum systems in the region. However, differing geological traditions across the several countries on the eastern side of the Adriatic Sea mean that coherent tectonic and stratigraphic models are lacking. In this contribution we present findings of a literature-based review into the geodynamic setting and tectonic evolution, pre-flysch stratigraphy and petroleum system elements, and structural styles of the external Dinarides and Hellenides. Emphasis is placed on the regional understanding of hydrocarbon systems and their tectonic and stratigraphic framework. The results of ongoing targeted structural geological and sedimentological field work will also be presented.