



## **Opportunities for Hydrocarbon Exploration beneath Large-Scale Thrusts in the Geological Structures of Albania**

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**Abstract:** The exploration for hydrocarbon resources is one of the most successful fields of albanian geology. Many oil and gas deposits are discovered in the Ionian tectonic zone and the Periadriatic depression. For a long time, the hydrocarbon exploration was developed under the influence of the geosynclinal theory. Hence, the formation mechanism of the geological structures was conceived a function of vertical-subvertical faulting. Gradually, during the last twenty years, gained ground the concept of large-scale thrusting. Large-scale thrusting between various units and structural-facial zones in the geological structures of Albania is presently widely accepted. Based on field observations, seismic profiles, as well as on the results of deep wells, the thrusting scale ranges from several kilometers to tens of kilometers. The Gramozi, Okshtuni and Peshkopia tectonic windows testify for 60 km westward-directed thrusting of the Internal Albanides onto the Krasta-Cukali tectonic zone. The seismic profiles carried out in the Ionian and Kruja tectonic zones, as well as over the Dumrea evaporite diapir, evidence an almost horizontally over 15 km thrusting of these units onto each other. Deep wells drilled into various tectonical structures, such as in Delvina, Kanina, Shpiragu, Dumrea etc., have verified thrusting of the scale of 3-8 km. The thrust tectonics concept is important for the geotectonic modeling of the geological structures of Albania, but it also opens new possibilities for hydrocarbon exploration in Albania.

**Key words:** *large-scale thrusting, hydrocarbon exploration, Albania.*

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