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DEAD SEA RIFT FUTURE PETROLEUM POTENTIAL OF ISRAEL

YURI GALANT

Independent Researcher

The Dead Sea Rift is of great interest for oil and gas potential. An analysis and synthesis of criteria for the Dead Sea Rift's oil and gas potential was conducted. The Dead Sea Rift locating between the Sinai and the Arabian plate and composed of sedimentary and igneous rocks of Jurassic and Cretaceous ages. Basalt flows of Neogene-Quaternary age. Due to the geological and tectonic position of the Rift, many positive, both global and local criteria for oil potential are concentrated. **Global criteria for oil and gas potential:** 1. The World's oil reserves are concentrated mainly in rift structures, 2. The Dead Sea Rift is part of the richest oil southern belt of the Globe, 3. The presence of disjunctive nodes which initiates the formation of giant deposits, 4. Mantle plumes at the base of rifts serve as sources of hydrocarbons, 5. 40% of oil deposit is associated with igneous rocks, 6. 80% of the World's oil reserves are concentrated in the Middle East, 7. Logarithmic law of distribution of oil deposits in Earth Crust. **Local criteria of oil and gas potential:** 1. Presents of Dead Sea combustible gas, asphalt and bitumen known since the ancient time, 2.Seismic activity, initiates degassing intensity, 3. Rift divergence mode, creates of hydrocarbon degassing , 4. Decompressed rock of Mantle, permanent hydrocarbon source, 5. Existence of typomorphic oil associated Polycyclic Aromatic Hydrocarbons in igneous rocks (Phenanthrene, Chrysene, Pyrene, Benz(a)pyren), 6.Bituminous substances , 7.Presence the Hydrocarbon components resembling on compositions of oil, 8. Low negative correlation coefficient = - 0.41% between Hydrocarbon and non-Hydrocarbon components of Polycyclic Aromatic Hydrocarbons in basalts indicating different sources of hydrocarbons, 9. The distribution of geochemical prospecting criteria is usually logarithmic, indicating the presence of hydrocarbon accumulation. **Conclusion:** The combination of positive global and local criteria for oil and gas allows us to highly evaluate the PETROLEUM POTENTIAL of the deep subsoil of the Dead Sea. For Israel, Dead Sea Rift represents future oil production potential. It is recommended to carry out detailed prospecting work in order to determine the most promising areas for exploration drilling.