

## **OIL- AND GAS SOURCE POTENTIAL OF ANCIENT SEQUENCES IN THE CENTRAL PORTION OF THE EAST-EUROPEAN PLATFORM**

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Drilling of parametric boreholes into the East-European platform is carried out to study geological structure and evaluate oil- and gas content in the ancient sequences of midland basins of Russia. The Riphean deposits, penetrated with deep boreholes in paleorift structures of the central platform (the Moscow Syncline), reach 3 km in depth, and considerably vary in lithological composition, content and genetic origin of dispersed organic matter, types of reservoir rock and caprock, presence of potential oil- and gas source sequences. Comprehensive geochemical investigations based on pyrolytic mass-spectrometry were undertaken to study conditions and specific features of realization of oil- and gas source potential in the Upper Precambrian deposits in the eastern portion of the Krestsovsky avlakogene. High gas-saturation was observed in Riphean deposits, which are rather poor with organic matter; traces of hydrocarbon redistribution and potential oil-source rocks were found. Spatial boundaries of «oil window», type and degree of kerogen maturity, values of initial genetic potential of the distinguished potential oil-source sequences, and conditions for its realization were proved. As a new prospecting facility for oil and gas in this region, the mantle of waste of the crystalline basement could be considered.