



Domanik deposits in Volga-Ural basin: Structure and formation conditions

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The high-carbon Domanic deposits within a Mukhano-Erohovsky trough in Volga-Ural Basin was analyzed from materials of the well cores in the region. Detailed macroscopic description of the cores was provided based on samples and thin sections. In this way, the composition, structure, conditions of sedimentation of high-carbon formation, reservoir properties of rocks, and their distributions in the sections were identified. It was concluded that the Volga-Ural basin is a pre-Ural foreland basin where Domanic siliceous carbonate shale formation formed during the peak of Late Devonian transgression. Domanic rich organic formation of Upper Devonian – Lower Carboniferous age is represented by clay-siliceous-carbonate and clean calcareous and siliceous rocks. These rocks formed in a calm sea basin with environments of shallow shelf, intrashelf depressions and their slopes. The most organic-rich deposits were accumulated in the central parts of the depression uncompensated by sediments.