

TECTONICS AND OIL-GAS HABITAT OF SEDIMENTARY BASINS OF THE EAST-EUROPEAN PLATFORM

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The Mezen and Pechora-Barents Sea heterogenetic sedimentary basins are located within the northern part of the East-European platform. The Mezen basin (MB) was formed on the margin of the ancient Arhaean-Early Proterozoic craton. Lithodynamical complexes, which were formed under condition of the riftogenetic (R1-R2), passive continental margin (R2-R3) and syncline (V-Pz-Mz) are distinguished in the section of its sedimentary filling. Pechora-Barents Sea basin (PBB) has been developed on the heterogenetic, mainly Neoproterozoic, basement. In the sedimentary filling of the PBB there are complexes related to different geodynamic regimes: riftogenetic, passive margin, overthrusting depressions, orogenic and syncline. There are no economic oil and gas fields found in the MB. There are more prospects of their detection in the Riphean and Vendian complexes in the Eastern part of the basin near the Timan ridge, including overthrusting structures. There are more than 180 oil and gas fields discovered in the PBB, 10 of them – in the Barents Sea part. The new prospects in the PBB are connected with the structures of the Barents Sea part. Within the continental part (Timan-Pechora) there is a possible detection of the new oil and gas fields in the deep-submerged deposits of the Pechora-Kolva aulacogen and Varandey-Adzva zone, and also in the structures of the Pre-Ural foredeep and the western slopes of the Urals and Pay-Khoy.