Tectonic and geographical demarcation of the Azov-Black Sea region from positions of actual geodynamics

Michael .E.Gerasimov, Vasily V.Gladun, Peter M. Chepil, George K. Bondarchuk, Flora A. Rybakova, Anatoly N.Skorik, Sergey V.Beletsky

For last years generalization and scientific reconsideration of all volume of the geological-geophysical information from positions of actual geodynamics being the paradigm most progressive and conventional in the world at geodynamic and tectonic generalizations is executed.

The basement of a tectonic structure of the Ukraine South in geodynamic aspect is compile by five paleofragments an earth's crust, entering nowadays in a tectonic collage on Eurasia suburb: paleomicrocontinent Arattia (Ukraine) in structure of East Europe craton; paleomicrocontinent (paleoisland arch) Scythia; paleoisland arch Crimea-Teodosia-Anapia (Balaklavian-Anapian); paleomicrocontinents Moesia and Dzirulia.

During geodynamic evolution with formation of the given collage by main basins of sedimentation there were pericraton deeps with passive suburban complexes, midland and back arching rifts with massifs of paleovolcanoes, marginal deeps. Magmatic and volcanogene-sedimentary complexes in structure of a sedimentary cover are caused by midland and back arching rift-genes, island arching and active suburban magmatism of various age and petrographic structure.

Antitethys and horst figurative blocks, folds of tangential compression and gravigenetectonic creeps, structures of covering of paleovolcanoes, clay diapirs and creeptodiapirs, reefogenic massifs of different age on passive suburbs, residual rift-genic uplifts and covering structures are oiland-gas perspective objects.

The Black Sea area mega deep, the Black Sea mega basin and dividing into districts the Prydanube -Crimean mega uplift - modern regional structures, are accepted as a basement at oil-and-gas geographical demarcation.

The greatest prospects of oil-and-gas potential are dated to Western Black Sea, Eastern Black Sea, Northern Crimean, Eastern Crimean back arching rifting systems (K-KZ), Karkinit-Northern Crimean and Indol-Kuban deeps of rift-genic nature (KZ), Kamensky (Tatarbunarsky), Karkinit-Syvash, Azov midland rifting system (T_2 - J_1), PreScythian (PZ_2), Predobrogean (J_3 - K_1), Bitaksky (J_3 - K_1) and PreCrimean (J_3 ?-KZ) regional deeps.

The discovery of large oil-and-gas fields is possible in four oil and gas geographical areas: gas Taurian (zone of PreScythian regional deep), gas and oil Karkinit-Northern Crimea, Western Black Sea and Eastern Black Sea perspective areas.