Development of tectonic structure model of Volgo-Kamsky anteclise (Russia).

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Model of tectonic structure of Volgo-Kamsky anteclise crystalline foundation in eastern part of Vostochno-Evropeisky platform has been improved. Recent results of geophysical surveys – regional and detail seismic survey, electric- and gravity prospecting in complex with deep drilling data served as basis for this.

Investigations of the authors showed that main structure forming unit, which determined modern tectonic framework of anteclise, is a complex interimposed network, created by several cluster-like systems. Each system is coordinated by geodynamic point with radially oriented network of disjunctive dislocations. Interfering, they form mosaic pattern of foundation surface.

Several such points of deep stresses are registered within Volgo-Kamsky anteclise, which started own systems of fractured zones. All root points are strictly oriented in space and controlled by old Proterozoic avlakogenes – Sergievsko-Abdullinsky, Kamsko-Belsky, Kazansko-Kazhimsky, Buzuluksky and Prikaspisky troughs. The nature of these dislocation systems is connected with geodynamic processes, occurring in earth shell and mantle and forming centres of stresses in the shell. In the process of pulse discharge of stresses, bearing cyclic character, these centres created clusters of radial systems of dislocations. .

New model of geologic structure of Volgo-Kamsky anteclise will serve as basis for geotectonic zoning and allow to evaluate in new light the prospects of Volgo-Uralsky oil-and-gas province.