

*Materials of Conferences***GEOECOLOGICAL MONITORING
OF PETROLEUM REGIONS
AND INFLUENCE OF GEODYNAMICS
ON ENVIRONMENT**

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Monitoring of an ecological condition of environment petroleum regions is one of the major problems at their development, for the purpose of safe development and carrying out of a policy of environmental management. Oil and gas bearing areas of Eastern Siberia throughout 40 years are studied by methods of geochemical and geoecological researches and mappings. In Krasnoyarsk region within 20 years the regional ecological monitoring which monitoring system includes waterways, springs, soils, vegetation, air, snow, geodynamic processes, boreholes is carried out. At development of oil and gas deposits the basic technogenic influence on environment, especially on soils, surface and underground waters render geological prospecting, geological exploration and oilgas-field objects. Environment undergoes the strongest influence as a result of development of the Urubcheno-Tokhomskoe field – the largest in Eastern Siberia. In soils technogenic anomalies, especially are revealed on: Pb, Cu, Cr, Ti, Ba, Mn, Co, and also Ni, Zr, V, P, Ga, Sr. In waters of the rivers on drilling areas steady hydrogeochemical anomalies were generated, average values of a mineralization and the basic components are increased in 1,5-4 times. Large anomalies

are established on: Co, Be, Br, In, Pb, Ni, Ba, Li, Cd, Sr, Ti, Mn. Concentration Br in some springs and the rivers exceeds maximum concentration limit in hundreds times.

Except anthropogenous influence on environment, a considerable role play the geological factors caused by geodynamic, structurally-tectonic, neotectonic processes. Last years geoecological, ecological and geodynamical, engineering and geological conditions are studied by space geological methods on the basis of modern digital space pictures and computer technologies of interpretation. The numerous geodynamic active zones caused by intensity of tectonic cracks and high density of lineaments are allocated ten thousand tectonic lineaments, and also. The complex lineamentno-geodynamic and geochemical analysis shows on dependence of formation of many geochemical anomalies on tectonic infringements and geodynamic active zones. This law, characteristic and for others oil and gas bearing regions – Western Siberia, the Volga- Ural basin, the Timano-Pechora basin, shows for geodynamics leading part along with oil-field tehogenesis in processes of pollution of environment. Therefore methods of studying of modern geodynamics should be obligatory at carrying out of ecological monitoring for any petroleum regions.

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