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Conception of Development of North Caspian Shelf Hydrocarbon Resources

The Caspian shelf is a high prospective hydrocarbon-bearing region in which the discovery of large high producing oil and gas fields is possible.

On VNIGRI assessment, forecast localized hydrocarbon resources of the North Caspian shelf are: - on oil - 4.5-11.3 billion t, of which 2.3-5.8 billion t - in Paleozoic deposits; - on gas - 1.5-3.7 trillion m³.

Localized hydrocarbon accumulations in Paleozoic deposits are characterized by the considerable content of hydrogen sulphide that demands using a set of combating measures and complicates gas production and its realization.

Offshore fields discovered near Buzachi Peninsula may contain oils with a commercial vanadium contents; its recovery on VNIGRI technology will increase the economic efficiency of field development considerably.

An analysis of projects of developing the northern part of the Caspian shelf shows that technical obstacles for developing the hydrocarbon fields and for all-the-year-round oil delivery to consumers are absent.

Two technical ways are possible for organizing production operations: construction of marine ice-strength fixed platforms and building artificial islands.

The North Caspian shelf gives 85% of world production of sturgeons and 90% of black calves. 5 - 10% of those investments that are directed to the developing hydrocarbon resources are necessary for environmental protection.

Europe is considered as a main market of oil; the promising markets are China and some other countries of the Asiatic-Pacific region.

North Caspian gas production may be 30 - 50 billion m³/year. It is expeditious to consider gas export in Europe or Asia as the main directions of its sale. The most optimum variant is its sale in Turkey (in the future - as transit goods in South Europe).

In the conditions of North Caspian, the majority of oil objects can be developed with high efficiency by profitability internal rate more than 30%.