

**O16-10****HEAVY OILS A NEW APPROACH TO PROBLEM****VALERI SAVTCHENKO**

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**Summary**

Heavy oils (with density 890 kg/cbm and more) are traditionally of less interest than lighter ones, unless amount of heavy oil reserves converts production of such oils into an attractive business (as like on Atabaska). However, large deposits of heavy oils and their valuable properties are rather exception to the rule. That's why, such deposits in most cases are beyond the attention of explorers.

**Introduction**

The heavy oil deposits (with the density 80 kg/cbm and more) and the oil show we think would be considered either the criterion of the search for new occurrence and deposits, or as the indication to the geology –geochemical conditions which conditions which furthered the appearance of oil. The development of the forecast itself of the spread of heavy oil accumulations is in any case the most considerable.

These accumulations are studied by use in the two regions –the Dnieper-Donets Depression (DDD) and the Kerch peninsula of the Crimea.

**Heavy oils of the Kerch peninsula**

Fire deposits with occurrences in the Neogene sediments and a deposits with the occurrences in Majkop formations are known in the Kerch peninsula; non-commercial heavy oil flows are obtained on some. There are also their numerous appearances on day surface the analysis of geological structure, properties and composition of these oils led to the conclusion that the oils of most of the deposits did not change such as it would be if oxidizing processes were taken place. Having rather high density heavy oils of the Kerch peninsula contain only a few tar and ever lesser quantity of paraffins and sphaltenes. Besides, the above oils are characterized by high content of pyronaphtha, naphthalene and aromatic hydrocarbons prevail in the hydrocarbon composition. These oils could not migrate far from the source of generation and be considered geochemically changed not much. Thus, such oil fields are good indicators of a potential hydrocarbon source. The necessity of searching primary oil fields show above does not decline expediency of the Neogene formations in order to discover more oil fields, apparently of heavy oils as non-traditional sources of hydrocarbon energetic raw material.

**Heavy oils of the Dnieper-Donets Depression**

The flows and signs of heavy oils in the Dnieper-Donets Depression are determined on more than 50 areas. Wide spread of heavy oils, their appearance in different structure-tectonic zones, their adjacency with different lithologi-stratigraphic complex (from the Cretaceous to the Devonian), relationships with local structures of various origin, migration and accumulation of heavy oils may be explained not only with the aid of oxidizing processes. Especially, as the majority of them are closely connected with Lower Carboniferous sediments for which large scale and general spreading of processes of hypergenesis is hardly imaginable. At the today's stage of study of the DDD heavy oils one can assume that their show in many cases could be explainable (like in case for heavy oils of the Kerch peninsula, too) as a result of collision processes.

## Conclusions

Criteria for places with heavy oil show in the Neogene deposits on the Kerch peninsula and the forecast of heavy oils have been suggested on the base of our propositions. Our scientific forecast about good prospects for discovery of new heavy oil fields within the Neogene sediments of the Kerch peninsula as well as ascertainment of criteria of those oil field's location and singling out of perspective sites allow again to resume survey and prospecting operations in this direction. That's why the Indolo- Kuban depression as the whole and its Neogene-Paleogene sediments in particular can be considered as highly perspective objects to discover new oil fields.

Criteria's which were universal for all the complex and for the whole DDD there for were defined by us with some difficulties. This question was answered more definitely in the case of some zones, for example the Jablunovskoe-Malosorochinskoe-Sagaidakskoe deposits.