

The spatial distribution of the Tula horizon layers and patterns of development

Novikova S., Nurgaliev D., Sudakov V., Novikov I.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The article presents a study of sediments of the Lower Carboniferous Tula horizon, confined to the western slope of the South Tatar crest on the example of Ivinskoye field. Important part of the geological study is the allocation of oil and gas reservoirs, their linking and matching with individual wells, as well as detailed analysis of the nature of the spread of these deposits on the area. The detailed dissection of Tula Lower Carboniferous sediments was made according to geological and geophysical materials. Reservoir beds of Tula horizon were allocated; we held their correlation, built thickness maps and structure map of the Tula horizon roof. We isolated frame and correlate "Tula limestone". According to drilling and seismic data Visean incision was described. The patterns of development of Tula horizon reservoirs were traced. We revealed vertical and horizontal variability of the earth formation, which suggests a complex lithological and facies conditions at the time. Also we traced the relationship between the horizons in sedimentation strata. The study of patterns of development and analysis of the spread of productive strata of Tula deposits allowed to establish links between sedimentation in the Tula period and spread of Visean incision.

Keywords

Correlation, Reservoir layer, Tula horizon, Visean incision