

Structural setting and zonal distribution of upper triassic-lower cretaceous reservoirs in the syrian euphrates graben

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Abstract

© SGEM2018. The purpose of the article is to assess the regional structure of the upper Triassic-lower Cretaceous sediments (Mulussa F and Rutbah reservoirs), which serve as an important targets for hydrocarbons production and exploration to the center and Middle East of Syria. The upper Triassic-lower Cretaceous sediments are approximately of 800 m thickness consist mainly of floodplain clays interbedded with medium to fine grained fluvial sandstones. In addition, there are dolomites and clay dolomites present in the lower parts of these deposits. The upper Triassic-lower Cretaceous deposits at Euphrates graben area were affected by the tow unconformity erosions; BKL and BKU, which led to significant changes in the thickness of the reservoirs sediments. These changes in thickness are also controlled by the axis of the non-isometric depositional basin, which has a direction from the North-West to the South-East. Another factor controls the changes and distribution of the thickness of upper Triassic-lower Cretaceous zones sediments which are the presence of the two uplifts (Khleissia uplift to the North-East and Rutbah uplift to the South-West). The high thickness of the upper Triassic sediments in the central part of the Euphrates graben suggests that the graben structure was formed prior to the unconformities erosion; BKL and BKU. Lower Cretaceous deposits are preserved almost inside the entire graben with a greater thickness on the flanks of the North-East and South-West of the Euphrates graben axis.

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Keywords

Euphrates graben, Lower cretaceous, Regional, Syria, Upper triassic

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