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准噶尔盆地西北缘八区克下组冲积扇高分辨率层序地层学

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摘 要：为认识剩余油分布规律，以冲积扇沉积模式及沉积特征为基础，应用高分辨率层序地层学方法，结合露头、岩芯及测井资料，研究八区克下组层序分布模式及砂砾岩体展布规律。研究结果表明：八区克下组冲积扇可识别出不整合面、洪泛面、冲刷面和岩性界面这4类层序界面；依据不同级次基准面升降运动所导致的地层过程旋回性和沉积学响应特征，将八区克下组可划分为3个中期旋回、10个短期旋回、15~16个超短期旋回；以冲积扇沉积体系超短期旋回、短期旋回和中期旋回的沉积序列、结构类型、叠加样式和分布模式为基础，以中期旋回层序为框架，可建立以短期和超短期旋回层序为等时地层对比单元的全区高分辨率层序地层格架；中期基准面旋回控制着砂砾岩体的分布模式，下部的中期旋回砂砾岩厚度大，是克下组主要的储集层。

关键字：冲积扇；高分辨率层序地层学；基准面旋回；层序界面；克下组

High-resolution sequence stratigraphy for alluvial fan on lower Karamay formation in 8th zone of northwestern Junggar Basin

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Abstract: In order to recognize the distribution of remaining oil in the late period of development, based on the alluvial fan sedimentary model and characteristics, using outcrop, core and well logs, high-resolution sequence stratigraphy method was employed to study the distribution of stratigraphic model and sandstone rock in lower Karamay formation in 8th zone. The results show that alluvial fan in lower Karamay formation in 8th zone can be identified as four types of sequence interface, i.e., unconformable surface, flooding surface, scour surface and lithologic transitional surface. Based on the strata cyclicity and sedimentology response caused by different grade base-level change, lower Karamay formation can be divided into three middle-term sequence cycles (MSC), ten short-term sequence cycles (SSC), 15-16 super-short-term sequence cycles (Sup-SSC). Based on sedimentary sequence of MSC,SSC and Sup-SSC, structure type, stacking pattern , distribution pattern, the high-resolution isochronous stratigraphic framework can be built using SSC and Sup-SSC as an isochronous stratigraphic correlation unit. Sandstone rock distribution is controlled by middle term cycle sequence; it is very developmental in lower middle term cycle, and is the main reservoir in the formation.

Key words:alluvial fan; high-resolution sequence stratigraphy; base-level cycles; sequence surface; lower Karamay formation

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