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济阳拗陷前第三系顶部风化壳结构发育特征及对油气成藏的影响 [点此下载全文](#)

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摘要:

基于地质综合研究, 系统分析了济阳拗陷前第三系顶部风化壳结构地质特征, 深入剖析了其形成主控因素, 探讨了风化壳结构对油气成藏的影响。研究认为, 济阳拗陷前第三系顶部风化壳中, 风化粘土层厚度薄, 分布地区发育, 岩石类型多样, 除部分半风化碳酸盐岩、火成岩、变质岩等顶部存在一层致密“硬壳”外, 物性多得到岩岩性、间断时间、古气候、古地形、上覆层沉积环境等5大因素; 多种因素共同作用, 决定了风化壳结构空间顶部“硬壳”对油气起遮挡、封盖作用, 顶部无“硬壳”的半风化岩石则可大大提高前第三系岩层的储集性能和

关键词: [前第三系](#) [风化壳](#) [油气成藏](#) [济阳拗陷](#)

Structure Characteristics of Weathered Crust at the Top of Pre-Tertiary in the Jiyang Depression [Download Fulltext](#)

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Abstract:

Based on integrated study, the paper discussed the structural characteristics of the weathered crust at the top of Pre-Tertiary in the Jiyang depression. Key factors controlling its formation, structural model of the influence on the reservoir formation were also discussed. The research showed that weathered clay layer is thin with limited distribution, suggesting a poor reservoir property; while semi-weathered lithologies extensively developed in the whole area, except for the tight “crust” on the top of sandstone, reservoir property was improved obviously. Structure of weathered crust is controlled by 1. weathering time, paleotopography, and sedimentary environment of the overlying strata. All these factors control the distribution of the structure of weathered crust. The weathered clay layer and “crust” on the top serves as caprock for petroleum reservoir, while semi-weathered rock without “crust” can improve reservoir property. The weathered crust system and serve as lateral migration path between different strata.

Keywords: [Pre-Tertiary](#) [weathered crust structure](#) [reservoir formation](#) [Jiyang depression](#)