

胡明,付广,吕延防,付晓飞,庞磊.松辽盆地徐家围子断陷断裂活动时期及其与深层气成藏关系分析[J].地质论评,2008,26(4):693-702.

松辽盆地徐家围子断陷断裂活动时期及其与深层气成藏关系分析 [点此下载全文](#)

[胡明](#) [付广](#) [吕延防](#) [付晓飞](#) [庞磊](#)

东北石油大学地球科学学院,黑龙江大庆,163318;东北石油大学地球科学学院,黑龙江大庆,163318;东北石油大学地球科学学院,黑龙江大庆,163318;东北石油大学地球科学学院,黑龙江大庆,163318;东北石油大学地球科学学院,黑龙江大庆,163318

基金项目:本文为国家大型油气田及煤层气开发科技重大专项“中国大型气田形成条件、富集规律及目标评价”“大型气田成藏机制与分布规律课题”(编号2008ZX05007-03)的成果。

DOI:

摘要:

为了能够准确地判断松辽盆地徐家围子断陷断裂的主要活动时期及其与深层天然气成藏之间的关系,本文分别采用火山活动期次与断裂活动期次匹配关系、剖面伸展率及构造演化剖面等4种方法对其进行了研究。首先,由同层位次与断裂活动时期匹配关系研究得到,断陷期(火石岭组、营城组一段和营城组三段沉积时期)和青山口组沉积时期次,由剖面伸展率法研究得到,断裂强烈的活动时期为火石岭组、沙河子组、营一段、泉二、三、四段和青山口组。其次,由剖面伸展率法研究得到,断裂强烈的活动时期为火石岭组、沙河子组、营一段、营三段、泉二段。最后,由LINE1208测线的构造发育史剖面研究可知,断裂的主要活动时期为火石岭组、沙河子组、营一段、营三段、泉二段。综合起来判定认为,该断陷断裂的主要活动期次有3期,分别对应于火石岭组沉积时期—营三段沉积时期、营二段沉积时期和营城组火山岩顶部2套重要盖层封闭能力形成时期。并且将综合判定出的断裂主要活动时期与该断陷源岩的生气史、登二段和营城组火山岩顶部盖层封闭能力形成时期进行匹配分析。综合研究认为登二段和营城组火山岩顶部2套重要盖层封闭能力形成时期早于该断陷源岩的天然气成藏的主要制约因素。徐家围子断陷后2期的断裂主要活动时期与深层天然气的主要充注时期相吻合,是天然且自姚家组至现今断裂活动较弱,这可能是先期形成的气藏得以较完整保存的主要原因。

关键词: [徐家围子断陷](#) [断裂活动时期](#) [断裂活动速率](#) [火山活动](#) [天然气成藏时期](#)

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Abstract:

To be able to accurately determine the main period of fault activity and its relation to the the Xujiaweizi Depression, Songliao Basin, in this paper, four methods of syndepositional fault activity period to determine fault activity period, stretch rate of cross section profile and tectonics were used to judge them successively. First, the research about the rates of syndepositional fault activity faults had been active during Lower Cretaceous Huoshiling Formation(Fm.), Shahezi Fm., Yingcheng Fm Dengloulou Fm., the Second Member of Quantou Fm. and Upper Cretaceous Qingshankou Fm.. Secondly, bas between the volcanic activity period and fault activity, fault depression period (Lower Cretaceous Member of Yingcheng Fm. and the Third Member of Yingcheng Fm.) and the deposition of Upper Cretaceous main periods of activity for the faults. Again, from the section stretch, the periods of faults act Cretaceous Huoshiling Fm., Shahezi Fm., the First Member of Yingcheng Fm., the Second Member of Quantou Fm., the Forth Member of Quantou Fm. and Upper Cretaceous Qingshankou Fm.. Finally, thro history of the LINE1208, the major activity period of faults are Lower Cretaceous Huoshiling Fm., S Member of Yingcheng Fm., the Third Member of Yingcheng Fm., the Second Member of Quantou Fm. and Up Fm.. Fault activity rates integrated judge concluded that there are 3 main periods of fault activity in the Xujiaweizi Depression and they are: Lower Cretaceous Huoshiling Fm.—the Third Member of Yingcheng Fm., Lower of Lower Cretaceous Quantou Fm. and Upper Cretaceous Qingshankou Fm.. They are analyzed the match in activity main periods, the exhaust periods of gas source rocks, the formation of cap rock sealing a period in the Xujiaweizi Depression. Comprehensive study accounts that the sealing ability formed p important cap rocks, are earlier than source rocks gas generation period numerously, so cap rocks a constraining of gas accumulation, but the fault activity main period and gas charging main period i and it is an important period of gas migration, and is also an important period deep of gas reservoi Xujiaweizi Depression. And after the formation of gas reservoir (K 2 y to the present) fault ac the main reason of gas reservoirs unspoiled and still relatively intact.

Keywords: [Xujiaweizi Depression](#) [Songliao Basin](#) [syndepositional fault activity period](#) [fault activity](#) [gas accumulation period](#)