

张惠良,张荣虎,杨海军,姚根顺,马玉杰. 2012. 构造裂缝发育型砂岩储层定量评价方法及应用——以库车前陆盆地白垩系为例. 岩石学报, 28 (3): 827-835

构造裂缝发育型砂岩储层定量评价方法及应用——以库车前陆盆地白垩系为例

作者 单位

[张惠良](#) [Hangzhou Institute of Geology, PetroChina, Hangzhou 310023, China](#)

[张荣虎](#) [Hangzhou Institute of Geology, PetroChina, Hangzhou 310023, China](#); [Research Institute of Petroleum Exploration and development, PetroChina, Beijing 100086, China](#)

[杨海军](#) [Tarim Oilfield Company, PetroChina, Kurla 841000, China](#)

[姚根顺](#) [Hangzhou Institute of Geology, PetroChina, Hangzhou 310023, China](#)

[马玉杰](#) [Tarim Oilfield Company, PetroChina, Kurla 841000, China](#)

基金项目: 本文受国家自然科学基金项目(40472069)和中国石油集团科技创新基金项目(2008D-5006-01-03)联合资助。

摘要:

针对构造裂缝发育型、深埋致密砂岩储层,依据露头、岩心、薄片、物性、古应力、测井、测试等资料,基于构造地质学、储层动力成岩地质学、测井学、分形学、数理统计学等多学科交叉,提出了露头构造裂缝建模、钻井构造裂缝刻画、测井构造裂缝分形分析、古挤压应力场恢复、储层埋深底限预测5种方法相融合、5个步骤相支撑的技术思路。以塔里木盆地库车坳陷大北1气田白垩系巴什基奇克组为例,半定量-定量刻画了构造裂缝发育型砂岩储层的裂缝发育规模、有效性和空间展布,为大北1气田的滚动勘探和整体评价提供了相对可靠的技术方法体系,同时为前陆盆地深埋致密裂缝发育型储层的研究和勘探提供了理论依据。

英文摘要:

Aiming at the tectonic fracture developed and deep buried tight sandstone reservoir, by using outcrop, cores, thin sections, physical property, palaeo-tectonic stress, well logging and testing data, etc., based on the multidisciplinary cross of structural geology, reservoir dynamic diagenesis geology, well logging, fractal and mathematical statistics, etc., the technical idea of 5 mixed research methods and 5 steps supported including outcrop structural fracture modeling, drilling structural fracture characterization, logging structural fracture fractal analysis, ancient compressive stress field recovery and the bottom line of reservoir depth prediction was founded. By an example of Cretaceous Bashijiqike Formation in Dabei 1 gas field of Kuqa depression in Tarim Basin, the fracture size, effectiveness and spatial distribution of sandstone reservoir of tectonic fracture developed type were semi-quantitatively and quantitatively characterized. This result provides a relatively reliable technical methodology for the rolling exploration and overall rating in Dabei 1 gas field, moreover it provides a theoretical basis for the research and exploration of fracture developed and deep buried tight sandstone reservoir in foreland basin.

关键词: [构造裂缝](#) [定量评价](#) [白垩系](#) [库车坳陷](#) [塔里木盆地](#)

投稿时间: 2011-01-10 最后修改时间: 2012-01-05

[HTML](#) [查看全文](#) [查看/发表评论](#) [下载PDF阅读器](#)

黔ICP备07002071号-2

主办单位: 中国矿物岩石地球化学学会

单位地址: 北京9825信箱/北京朝阳区北土城西路19号

本系统由北京勤云科技发展有限公司设计

[linezing.com](#)