

天然气地球物理勘探

基于统计岩石物理学的流体成分反演应用实例研究

轩义华, 袁立忠, 汪瑞良, 秦成岗, 刘铮, 吴湘??

中海石油(中国)有限公司深圳分公司研究院, 广东 广州 510240

摘要:

珠江口盆地番禺流花天然气区的PY气田位于陆架陆坡转折带上, 特殊的沉积环境导致该地区主要储层SB21.0砂岩含油气性结论复杂, 常规的AVO技术在该地区的应用存在陷阱。将统计岩石物理学与AVO理论结合, 得到流体成分反演理论。流体成分反演技术是AVO技术的延伸, 是一种定量的AVO技术, 其最终结果是直观的碳氢指示分布图。采用流体成分反演技术, 对研究区SB21.0储层进行含油气性预测。研究表明: 流体成分反演技术能较有效、准确地检测已上钻目标储层及验证未上钻目标储层的流体性质。该理论的深入应用将有助于指导番禺流花天然气区的进一步勘探。

关键词:

Realization and Application of AVO Fluid Inversion Based on Statistical Petrophysics

XUAN Yi-Hua, YUAN Li-Zhong, WANG Rui-Liang, QIN Cheng-Gang, LIU Zheng, WU Xiang-Jie

Research Institute of Shenzhen Branch, CNOOC Energy Technology & Services Co. Ltd., Guangzhou 510240, China

Abstract:

PY gas field is at shelf break turing zone, and the special depositional environment leads to complicated T50 sand forecasting. The common AVO theory is not applicable in PY gas field. AVO fluid inversion (AFI) is a quantitative technique on the basis of statistical petrophysics and AVO theory, making carbon hydrogen probability graph. The predication of T50 gas sand using AFI suggest that the AFI theory can estimate the hydro of bored well and certified well validly and accurately. It can be believed that the applications of AFI will guide the additional exploration and improve success rates of gas exploration.

Keywords:

收稿日期 2010-02-24 修回日期 2010-06-21 网络版发布日期

DOI:

基金项目:

通讯作者: 轩义华xuanyh@cnooc.com.cn.

作者简介: 轩义华(1978-), 女, 山东冠县人, 工程师, 博士, 主要从事油气勘探及综合研究工作.

作者Email: xuanyh@cnooc.com.cn.

参考文献:

本刊中的类似文章

文章评论

扩展功能

本文信息

- ▶ Supporting info
- ▶ PDF(4777KB)
- ▶ [HTML全文]
- ▶ 参考文献[PDF]
- ▶ 参考文献

服务与反馈

- ▶ 把本文推荐给朋友
- ▶ 加入我的书架
- ▶ 加入引用管理器
- ▶ 引用本文
- ▶ Email Alert

本文关键词相关文章

本文作者相关文章

- ▶ 轩义华
- ▶ 袁立忠
- ▶ 汪瑞良
- ▶ 秦成岗
- ▶ 刘铮
- ▶ 吴湘??

PubMed

- ▶ Article by Han, X. H.
- ▶ Article by Yuan, L. Z.
- ▶ Article by Hong, R. L.
- ▶ Article by Qin, C. G.
- ▶ Article by Liu, Z.
- ▶ Article by Tun, X. J.