平方王下古生界潜山界面卡取方法研究

摘 要

下古生界潜山经历多期构造运动的改造，且剥蚀风化严重，从而形成了裂缝型储层、孔隙 - 裂缝型储层[1]。这种潜山储层若没有准确卡中潜山界面且及时下入技术套管，便会发生重大安全事故，如井漏、井喷或地层坍塌等。为了及时准确的卡准潜山界面[2]，避免发生钻井工程复杂情况，于是便根据钻井工程参数、邻井资料对比分析、潜山变质岩岩性特征分析、录井新技术等，总结出了一套下古生界潜山界面的卡取方法。在钻、录井过程中按照地质设计捞取岩屑，分析总结下古生界变质岩特点，利用“钻+岩+录”相结合的方法卡取潜山界面。本文主要探讨了在钻井录井的实践过程中，归纳出“元素+岩屑”的录井方法是最适合运用在平方王地区卡取潜山界面的方法。利用该方法，可以有效、准确、高效的卡中下古生界潜山界面，并且实际界面和录井卡取界面误差小，为钻井施工安全提供了保障。

关键词：下古生界；录井新技术；元素录井方法（X 射线荧光录井）；潜山界面

Abstract

The buried hill in the lower Paleozoic underwent the transformation of multi-stage tec tonic movement, and the denudation and weathering were serious, which resulted in the for mation of fractured reservoir and pore-fractured reservoir. If the buried hill reservoir is not accurately stuck in the buried hill interface or the technical casing is not inserted in time, m ajor underground safety accidents such as well leakage, blowout or formation collapse will occur. In order to calibrate the buried hill interface timely and accurately and avoid the occ urrence of complicated drilling engineering, a set of identify extraction method for the buri ed hill interface of lower Paleozoic was summarized according to the drilling engineering p arameters, the comparative analysis of the data of adjacent Wells, the analysis of the litholo gic characteristics of buried hill metamorphic rocks, and the new logging technology. In th e process of drilling and logging, cuttings are collected according to the geological design, the characteristics of the metamorphic rocks of the Paleozoic are analyzed and summarized , and the buried mountain interface is stuck by the method of "drilling + rock + record". Th is paper mainly discusses the practice of drilling and logging, and concludes that the loggin g method of "element + cuttings" is the most suitable method to capture the buried hill inte rface in the kwong area. By using this method, the buried mountain interface in the lower P aleozoic can be effectively identified, accurately and efficiently, and the error between the actual interface and the interface of logging card is small, which provides a guarantee for t he safety of drilling construction.

Key words: lower Paleozoic; New logging technology; Elemental logging method (X -ray fluorescence logging); Buried hill interface

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