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# 凝析气藏注入干气超覆评价方法研究

## 摘要

凝析气藏具有油、气藏两种共同的结构特性，因凝析气藏在注气开采时出现干气扩散现象，导致注气过程中限制了凝析气藏的效率。对于其评价方法、控制的因素和变化规律研究的还不深入。对于不能掌控的影响因素，牙哈凝析气藏注气时发生对流扩散导致发生超覆现象进行深入研究和对注入的干气扩散超覆的评价控制方法问题进行了探究：

为了有效提高凝析气藏的产量和采收率，通过进一步分析注入凝析气藏的注入剂特征和造成气体超覆的内在因素，同时对凝析气藏中注入干气的对流扩散、储层物性和注入剂开采过程参数进行一系列研究分析，解释出凝析气藏注入干气时，导致产生超覆现象具体原因。

在注气技术开发项目工作管理模式本次注入和开采气藏干气超覆的准确性有效定量对比评价和综合分析方法，从5个方面对气藏超覆动态变化情况进行定性对比和综合分析，实现了对于本次注入和开采气藏干气超覆的准确性和有效定量的综合评价。对注入干气超覆评价方法的研究，利用建立评价方法，对牙哈凝析气藏注入干气超覆进行评价研究

**关键词：**凝析气藏；注气渗流规律；超覆现象及机理；超覆评价方法

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## Abstract

Condensate gas reservoir has two common structural characteristics of oil and gas reservoir. which limits the efficiency and utilization rate of condensate gas reservoir in the process of gas injection. Up to now, the study of dry gas injection overlap in China is not deep enough, and there is no comprehensive and in-depth solution to it. The research on its evaluation method, control factors and change law is not in-depth. For the uncontrollable influencing factors, the phenomenon of overlaying caused by convection diffusion during gas injection in Yaha condensate gas reservoir is studied in depth, and the evaluation and control methods of overlaying of injected dry gas diffusion are explored

In order to improve the output and recovery of condensate gas field, the main production characteristics are analyzed. and internal factors that cause gas overlap, a series of research and Analysis on convection diffusion, reservoir physical properties and injection agent production process parameters of injected dry gas in condensate gas reservoir are carried out to explain the specific causes of overlap when injected dry gas in condensate gas reservoir Because.

Under the work management mode of gas injection technology development project, the accurate qualitative and effective quantitative comparative evaluation and comprehensive analysis methods of this injection and production gas reservoir dry gas overlap are respectively carried out from five main aspects, including the qualitative comparison and comprehensive analysis of the dynamic changes of the gas reservoir overlap in the injection and production gas reservoir dry gas production wells and this injection and production gas wells, so as to realize this injection and development Comprehensive evaluation of accurate qualitative and effective quantitative of dry gas overlap in gas production reservoir. Combined with the understanding of the overburden rule of injected dry gas and the establishment of overburden evaluation method, the evaluation of injected dry gas overburden in Yaha condensate gas reservoir is studied by using the established evaluation method.

**Key words:** Condensate gas reservoir; gas injection and seepage law; overburden phenomenon and mechanism; overburden evaluation method.

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