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Type: **Poster Presentation**

Experimental Research and Application of Fracture Stress Sensitivity

Monday, 30 May 2022 15:10 (1h 10m)

Abstract: Stress sensitivity is a typical reservoir damage. Before large-scale development of tight gas reservoir, a correct understanding of reservoir stress sensitivity is very important for the protection and efficient development of tight sandstone gas reservoir. Therefore, taking the tight sandstone cores of the lower accumulation assemblage in the southern margin of the Junggar Basin as the research object, the stress sensitivity experiment and electron microscope scanning experiment were carried out, and the gas well productivity model considering the stress sensitivity coefficient was deduced. The results show that: The micro pores and micro fractures of the original tight sandstone matrix are not developed, the permeability and porosity are low, and have high stress sensitivity coefficient; The stress sensitivity coefficient of fractured rock sample increases with the increase of fracture angle; In the process of the gradual increase of the production differential pressure, the productivity of the gas well also increases, but the rate of productivity increase gradually slows down; Under the same production differential pressure, the productivity of gas well decreases gradually with the increase of the fracture angle.

Key words: Tight sandstone; Fracture; Stress sensitivity test; Gas well productivity model

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References

Time Block Preference

Time Block B (14:00-17:00 CET)

Participation

Online

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