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Reserves Classification and Well Pattern Infilling Adjustment in Tight Sandstone Gas Field ZHI GUO[1], AILIN JIA, Petrochina Research Institute of Petroleum Exploration and Development, TIGHT GAS DEVELOPMENT TEAM — Sulige is typical of tight sandstone gas field in China, with poor reservoir property and strong heterogeneity. The recovery factor is only about 30% under the current developing well pattern of 600m800m. Thus it is necessary to evaluate various types of reserves comprehensively and implement well pattern infilling adjustment respectively. Through fine reservoir description in dense well pattern and interference well test analysis, the reservoir distribution frequency was studied and reserves were classified into five types. Compared actual production data with modeling & simulation result, the relation of well pattern density, interference degree and recovery factor was researched for each type of reserves. Then, it can be concluded the appropriate well pattern density in various type of reserves area is 2˜4 wells per square kilometers, and the ultimate recovery factor is about 50%. This research, makes reserves configuration clear in the tight sandstone gas field, provides geological basis for well pattern infilling adjustment in later development stage, lays a solid foundation for long-term stable production of gas field, and is also of certain reference significance to other gas field development under similar geological conditions.

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