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**Ailin Jia***Research Institute of Petroleum Exploration and Development-CNPC, China***Current status and future technical orientation of tight gas development in China**

Tight gas plays an important role in natural gas of China. After about 15 years exploration and development, the original reserves and explored reserves of tight gas have been proven to be in large scale. It has fulfilled the beneficially development in Ordos Basin, Sichuan Basin and Songliao Basin and the total production has exceeded 30 billion cubic meters, accounting for about 1/4 of total natural gas production of China. In this paper, geological characteristics of China's tight gas reservoirs are systematically analyzed, which are divided into 3 kinds: Multi-layered stacked lenticular reservoir, layered reservoir and massive reservoir. Meanwhile, it is more complicated for tight gas development in China than that in the US or in Canada through the comparison of reservoir geological characteristics. The tight gas development is benefit from engineering and technology based on its own geological characteristics, including high-quality reservoir prediction and well placement optimization, low-cost and fast drilling technology, large well group-multiply well group-factory operating pattern drilling technology, stimulation technology, underground restriction and low pressure transmission, water drainage technique and digital management. Though tight gas develops fast, it faces with the general problem of low recovery at the same time, with the value just around 35%. Therefore, enhance gas recovery rate has become the key issue now and the future. Taking sulige gas field, the largest natural gas field in China for example, 4 kinds of technical methods, reasonable allocation of well production, water drainage technique, old well lateral drilling and well pattern infilling are introduced to increase gas recovery efficiency. The series of techniques can also provide reference for the same kinds of reservoirs to guarantee stable and beneficial development in the long term.

Biography

Ailin Jia is an Expert of Development of Natural Gas Resource. He has completed his BS degree in Petroleum Geology from the China University of Petroleum and his MS, PhD degrees in Petroleum Engineering from Research Institute of Petroleum Exploration and Development (RIPED), Beijing, China. In 2005 he became a Professor of Petroleum Engineering at RIPED, Petro-China. He has worked in the areas of oil and gas geology, reservoir modeling and engineering. He is currently the Director of Ordos Basin Branch Institute of RIPED, Petro-China. As a Professor, he has published over 80 papers and 10 books in the oil and gas development fields.

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