



Resource Assessment for Xu jiahe formation of Chuanzhong District in Sichuan Basin

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Xu-2, the second member of Xu jiahe formation of Chuanzhong district in Sichuan Basin, is the tight sandstone gas reservoirs. The sum of conventional gas traps was used to evaluate it before, but the evaluation results are not reasonable enough. According to the characteristics of great-area continuous tight sandstone gas, this paper puts forward a kind of resource abundance analogy method to research the distribution of gas reservoirs and resources potential of Xu-2 of chuanzhong district. Firstly, we build 18 scale areas of tight sandstone gas accumulation at home and abroad and use relevance analysis and parameters preference skills to confirm the key parameters and set up the parameter evaluation system and determine the criterion of the parameters. Then, based on the analysis of conditions for tight gas accumulation of Xu-2, second member of Xu jiahe formation, Chuanzhong district (area 40000km²) is divided into 10 blocks, we contrast scale areas of tight sandstone gas accumulation with the blocks respectively, and calculate the related coefficient of analogy, finally compute resource of each block. The results demonstrate that: the total tight sandstone gas resources in Xu-2 reach to about 2,200 billion cubic meters, and the resource enrichment value is about 0.05 billion m³/km², which shows the bright prospect of exploration of tight sandstone gas. There are high abundance gas reservoirs around the areas of A-B-C and D-E-F, and abundance values have reached to 0.12 billion m³/km² and 0.11 billion m³/km² respectively, which provides the directions for exploration of tight sandstone gas in Chuanzhong district.