

An Experimental Study on Oil and Gas Extraction from Oil Shale by in-situ Steam Injection in Bogurda Mountain, Xinjiang Province

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Abstract: oil Shale deposit is huge reserves, and undeveloped important unconventional oil and gas resources, scholars in many countries around the world are committed to in situ distillation of oil shale, as not yet the development of industrial scale. Authors devotes to the in situ thermal oil shale mining research for more than 20 years, this paper introduces under the action of different anaerobic dry distillation temperature, microscopic CT technology for oil shale pore, the changing rule of the microcracks, expounds the change of microscopic pore and fracture in situ heating oil shale, relevant laws and the dry distillation and oil and gas migration. Put forward of coupling mathematical model for deformation, seepage, heat and mass transfer in situ thermal oil shale mining shale oil, and with a large number of numerical simulation studies, revealed to process and law of heat transfer and pyrolysis from the macroscopic fracture to micro crack and pore, provides scientific guidance to thermal exploitation in situ of oil shale. Studied the xinjiang Bogurda Mountain shale deposit occurrence characteristics, and its development in situ technology solutions.