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Gas flow in ECBMR in coal-bearing formation -Study on CO2 storage in coal-bearing formation-

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The authors are engaging in the development of geological CO2 storage simulator ECOMERS(CBF)-UT, enabling the simulation for both coal seam and aquifer. Gas flow analysis for model coal-bearing formation composed of two coal seams and one aquifer showed a interesting feature. CBM production history from upper coal seam has complex production rate due to the mixture of CBM from lower coal seam. CH4 and CO2 flow analysis, which affects the CBM production rate and CO2 storage amount are presented.

Keywords: Coal-bearing formation, CO2, Geological storage, Enhanced coalbed methane recovery, Gas flow, Simulation