عنوان مقاله:

Applying a Cutting Edge Solution to Predict Breakthrough Time of Water Coning in Naturally Fractured Reservoirs

نویسنده:

Mohammad Ali Ahmadi - *petroleum University of Technology*

خلاصه مقاله:

Water coning caused water flow into the wellbore from below the perforations and causes several problems in wellbore and surface facilities. For solve these problems, we must know breakthrough time of water in wellbore. In this paper, potential application of feed-forward Artificial Neural network (ANN) is proposed to predict breakthrough time of water coning. The BP is implemented here to decide on initial weights of the parameters used in neural network. The developed BP-ANN model is examined by using new experimental data. Results obtained from the developed BP-ANN model were compared with the experimental water coning data. The average relative absolute deviation between the model predictions and the experimental data was found to be less than 9%. Results from this study indicate that application of BP-ANN in breakthrough time prediction which can lead to design of more efficient production scenarios.

کلمات کلیدی:

Fracture Reservoir, Breakthrough Time, Neural Network, Water Coning, Hybrid

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