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A Modified Model for Predicting Permeability Damage due to Oilfield Scale Deposition

A. S. A. Fadairo, O. Omole & O. Falode

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Abstract

Scaling is a major problem in water flooding caused by the mixing of incompatible injected and formation waters. The phenomenon results in precipitation and accumulation of oilfield scale around the well bore after water breakthrough at reduced reservoir pressure. This results in formation damage, which may influence reservoir well bore performance and success of water flood project. This article presents a modified model for predicting permeability damage due to oilfield scale precipitation at different operational and reservoir/brine parameters. The key operational and reservoir parameters that influence the magnitude of flow impairment by scale deposition are identified through the modification.

Keywords: formation damage, modeling, oilfield scaler, water flooding

Article

The Effect of Temperature on Calcium Carbonate Scale Formation in Iranian Oil Reservoirs Using OLI ScaleChem Software

M. Amiri et al.

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