

Scale up heterogeneity and recovery performance from core to field scale for an oil sandstone reservoir

Abdollah Esmaeili

Cyprus International University, Cyprus

Abstract

In this paper, according to actual condition of an oil field, we have studied this reservoir behaviour and try to find a relationship between reservoir properties in scales with other scales. Heterogeneity and recovery efficiency have been tested experimentally using several cores of this sandstone reservoir. Reservoir rock and fluid properties changing during this process has been investigated. For this purpose, a set of experimental tests based on core flooding tests on sandstones were designed. Totally, this research has been done in two sections. In phase 1, called problem statement, we tried to get enough data and information about this field to know the problems in this field related to this research topic. In phase 2, called finding solution methods, solution methods for solving these problems were investigated.

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Biography

Abdollah Esmaeili work in National Iranian Oil Company (N.I.O.C). I work in this company as a senior petroleum engineer and I have a permanent position in this company. My experience in this company from beginning to now is 28 years. Furthermore, I teach petroleum engineering courses in universities of Iran and international universities worldwide.

I have attended in several scientific international conferences as speaker and lead several international scientific workshops and master classes worldwide.