

عنوان مقاله:

Determination of Minimum Miscibility Pressure (MMP) using PVTi Software, Eclipse ۳۰۰ and Empirical Correlations

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خلاصه مقاله:

p>One of the most important factors through the miscible gas injection process is to determine the Minimum > Miscibility Pressure. According to the definition, the minimum miscibility pressure is the minimum pressure at which, at a constant temperature, the oil and gas injected can dissolve together to form a single phase. This pressure is typically abbreviated as MMP. Among the available methods for determining the minimum miscibility pressure, laboratory methods including slim tube test and ascending bubble apparatus test are more widely utilized. Although the mentioned tests have high measurement accuracy, they are very time consuming and expensive. Therefore, the determination of the minimum miscibility pressure is usually done using computational and simulation approaches that also have high accuracy. Conducting PVT tests and determining their MMP using slim tube method was previously performed. In this study, the minimum miscibility pressure of reservoirs was determined by applying three methods of simulation with PVTi software, simulation with Eclipse ۳۰۰ software and using Empirical Correlations. By comparing the obtained results and the laboratory results, it was revealed that the simulation by Eclipse ۳۰۰ is regarded as the .fastest and most accurate approach

کلمات کلیدی:

gas injection, first-contact miscibility (FCM), multi-contact miscibility (MCM), Simulation, Empirical correlations

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