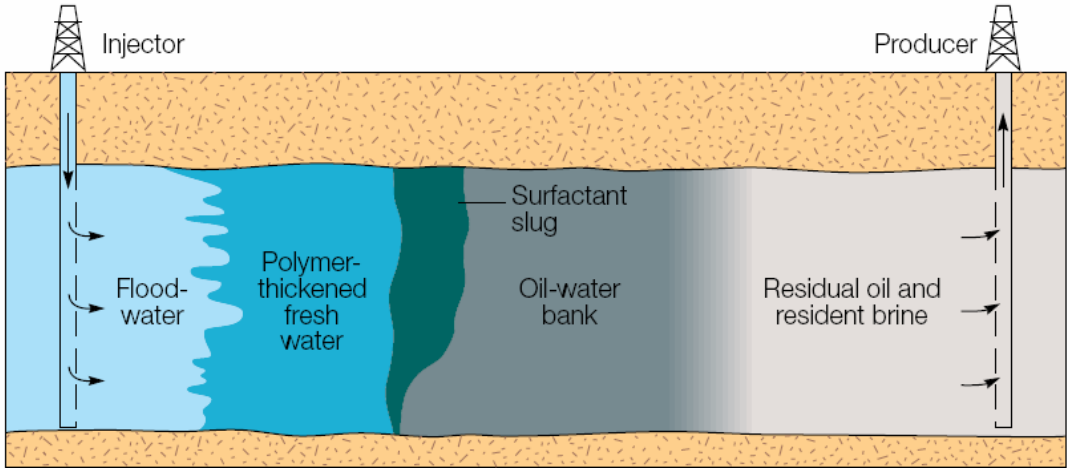
Universiti Teknologi Malaysia (UTM)

SPE International Iran Section

Islamic Azad University (IAU) Science &Research Branch

Science & Research Branch (IAU) SPE Student Chapter

Recent Advances in Chemical EOR Processes



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Abstract:

The crude oil production history in the world shows that one third to half of the original oil in place (OOIP) is recovered using the primary and secondary production technologies. Enhanced oil recovery (EOR) methods have been shown to be effective in recovery of this half to two thirds remaining reserves that is usually isolated and trapped. Chemical flooding is an important technology for enhanced oil recovery. A considerable amount of oil remains in Middle East reservoirs as well as many other mature oil fields around the world. Many of these are carbonate reservoirs that have low primary and water flood recovery as a result of poor sweep efficiency. Chemical flooding methods such as polymer, surfactant/polymer (SP), alkaline/surfactant/polymer (ASP) and foam flooding have been shown to be effective in recovering the unswept oil in these reservoirs.

So, the objective of this workshop is to study and understand chemical flooding processes in detail. The emphasis is on reactions, phase behavior studies and novel methods in the world. This workshop tries to help last year students to find their way to choose a proper project.

The outline:

- Chemical EOR Classification
- Polymers and Polymer Gels
- Surfactant Flooding
- Alkaline Flooding
- AS, SP, ASP Flooding
- Foam Flooding
- SAG
- Limitations
- Conclusions & Recommendations