Geophysical Research Abstracts,
Vol. 11, EGU2009-13288, 2009
EGU General Assembly 2009

Micro-Employees Employment, Enhanced Oil-Recovery Improvement

M. Allahtavakoli (1) and Y. Allahtavakoli (2)

(1) Alzahra University, Tehran, Iran (m_allahtavakoli@yahoo.com), (2) National Iranian Oil Company (NIOC), Exploration Directorate, Survey Department, Tehran, Iran (y_allahtavakoli@yahoo.com)

Employment of Micro-organisms, as profitable micro-employees in improvement of Enhanced Oil Recovery (EOR), leads us to a famous method named “MEOR”. Applying micro-organisms in MEOR makes it more lucrative than other EOR ways because feeding these micro-employees is highly economical and their metabolic processes require some cheap food-resources such as molasses. In addition, utilizing the local micro-organism in reservoirs will reduce the costs effectively; Furthermore these micro-organisms are safety and innocuous to some extent. In MEOR, the micro-organisms are always employed for two purposes, “Restoring pressure to reservoir” and “Decreasing Oil-Viscosity”. As often as more, the former is achievable by In-Situ Mechanism or by applying the micro-organisms producing Biopolymers and the latter is also reachable by applying the micro-organisms producing Bio-surfactants. This paper as a proposal which was propounded to National Iranian Oil Company (NIOC) is an argument for studying and reviewing “Interaction between Micro-organisms and Reservoir physiochemical properties”, “Biopolymer producers and Bio-Surfactant Producers”, “In-Situ Mechanism”, “Proposed Methods in MEOR” and their limitations.