

## Abstract

The use of the water improved nonionic surfactant and polymer in EOR was studied. The study of the ternary diagrams in rich area in water and oil brought the existence of direct and reverse microemulsions. The extent of these zones depended on the temperature and on the hydrophilic property of the nonionic compound. The choice of the ternary system depended on parameters of the field. The polymer with acrylamide, noted as POLYDIA PDS, was considered. The viscosity of the compound was estimated by measures for various aqueous solutions of the polymer. At high concentrations, considerable viscosity values were observed. These values were due to high molar weight of the polymer. The resistance in the mechanical constraints obtained with various rates of cutting was good especially in the low concentrations of the polymer (< 600 ppm)