

## Laboratory Measurement of Relative Permeability of Immiscible Fluids in Sand

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**Abstract :** Relative permeability is the important parameter controlling the immiscible displacement of multiphase fluids flow in porous medium. The relative permeability for immiscible displacement of two-phase fluids flow (oil and water) in porous medium has been measured in this paper. As a result of the experiment, irreducible water saturation,  $S_{wi}$ , residual oil saturation,  $S_{or}$ , and relative permeability curves for Kerosene, Heavy oil and Lubricant oil were determined successfully.

**Keywords :** relative permeability, two-phase flow, immiscible displacement, porous medium

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