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MODELLING PROCESS OF WATER-OIL-MIXTURE DEMULSIFATION IN DEEP-WELL PUMPS

Abstract

In present paper results of theoretical and experimental researches of water-oil mix demulsifation at work of downwhole oil-field equipment (deep-well pumps) are resulted.

It is shown, that generated during movement the pump piston shock disturbance influence on intensity and demulsifation depth of water-oil mixes. Laboratory researches have shown, that the demulsifation degree depends on frequency of shock disturbance and its duration. Experiments on samples of various deposits have confirmed effect of rheophisical properties of oil (viscosity, density, content of pitches and asphaltenes) on demulsifation degree.