عنوان مقاله:

Selection of Drilling Muds Using Well Hydraulic Calculations

محل انتشار:

یازدهمین کنگره ملی مهندسی شیمی ایران (سال: 1385)

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خلاصه مقاله:

One of the most important factors which affects mud selecting is the rheology conditions of mud, which has the role of controlling the well hydrodynamic behaviors such as pressure drops through the string pipes, bit, annulus, upraised mud pressure (UMP) and cuttings movement from the depth. In this study a computer program has been prepared to calculate the density and viscosity (or rheological index) of mud. This program has been developed based on the pressure drop equations and the settling velocity equation of the cuttings for Bingham and power law fluids in a reverse procedure to find density and viscosity of drilling mud. A combined algorithm has been prepared to solve these strongly bad behavior equations. The results have been compared with the assumed values in direct hydraulic .calculations and a maximum error of 0.14% has been observed

کلمات کلیدی:

Drilling Mud Selection, Hydraulic Calculations, Bingham Fluid, Power Law Fluid