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**Validation of Apparent Viscosity Formula using Different Drilling Fluid Samples**

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**Abstract**

A Marsh Funnel is a simple device which uses a simple technique to measure the apparent viscosity of a drilling fluid. In this experiment we will validate M.J Pitts and Faleh H. M. Almahdawis formula for apparent viscosity, i.e., μeff = ρ (t - 25) and μapp = ρ (t - 28) respectively, where μapp = apparent viscosity in centipoise, ρ = density in g/cm³, t = quart funnel time in seconds. To validate we will check the apparent viscosity of a drilling fluid using a marsh funnel and a hand crank viscometer and compare the reading gained using the above formula and the reading from the hand crank viscometer. By this method we will be able to check which of the above two formula is more accurate and suitable for checking the apparent viscosity of a drilling fluid. The drilling fluid prepared will contain different types of additives to ensure that the formula will be applicable for a variety of drilling fluids.

**Keywords:**

Validation, Drilling fluids, Apparent viscosity, Marsh Funnel, Viscometer

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