

Alternative lubricant additives must have friction-reducing physicochemical properties and moderate costs compared to those of petroleum oils before they can become widely accepted in the marketplace. The comparative analysis of several valuable friction-reducing physicochemical properties indicated that the biodiesel obtained from distilled pyrolytic oil is a suitable lubricant additive for water-based drilling fluid. Lubricant additives are added to drilling fluids to lower the drag and torque between the drill strings and rock formation.