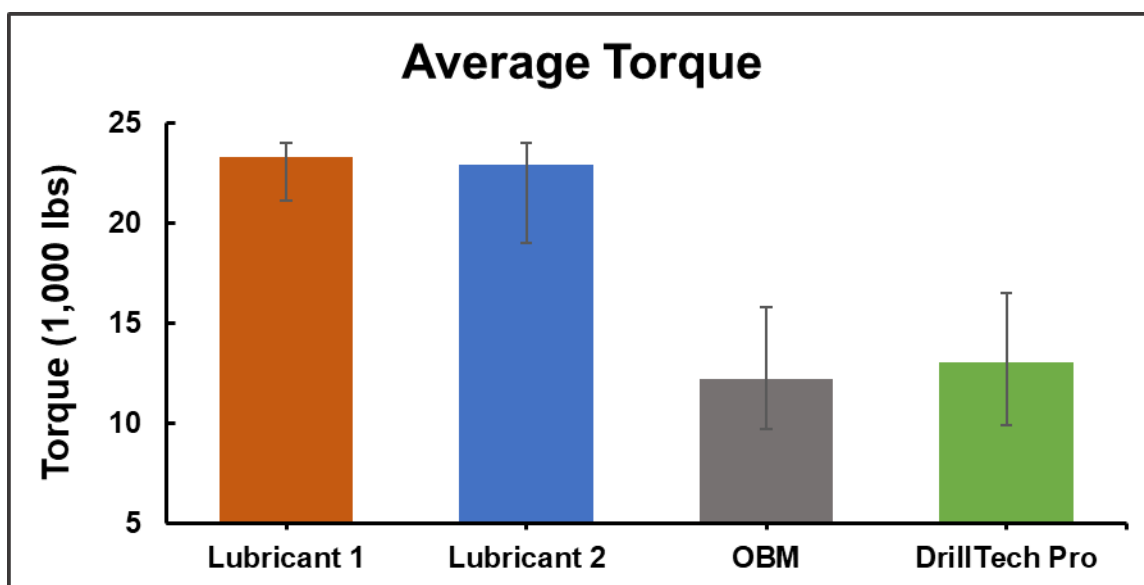


CASE STUDY - DrillTech PRO Drilling Fluid Lubricant

DrillTech PRO Drilling Fluid Lubricant was designed in a close collaboration between Integro Solutions, service company, and the operator. Laboratory data is valuable, but downhole conditions are very different and can be extremely difficult to predict. DT PRO is the product of testing different chemistries in dozens of lubricant trials in the field and has proven to perform unlike any other available on the market.

Field Evaluation: DT PRO was compared to industry leading water-base lubricants as well as oil-based muds in long laterals within the Permian Basin. All wells were drilled to 18,500 to 20,000' TD in the Sprayberry and Wolfcamp formations. Offset wells were used whenever possible. Table below shows the average off-bottom torque and range of torque readings encountered (min 5 wells).



Results/Discussion: DrillTech PRO outperformed all other WBM lubes tested and demonstrated torque readings well within the range of OBM. PRO has proven to drill wells previously thought to be impossible with WBM formulations.