Unconventional resource plays across the U.S. have emerged as the driving force behind the recent recovery in the energy sector. The length of the horizontal section of the well continues to increase as Operators strive to extract more for less. The directional drilling industry is fundamental in ensuring super laterals or ultra-long lateral (ULL) wells are drilled within the targeted payzone, both on time and on budget. Recent advances in directional drilling efficiency have been tremendous, enabling lateral lengths in plays, such as the Utica and Marcellus, to exceed 18,000 ft. The Permian Basin is set to follow suit with the average lateral length already approaching 8,000 ft.

The positive displacement motor (PDM) or humble “mud motor” as it is better known, has been the powerhouse behind many record bit runs and continues to be a source of incremental improvement to decrease time on wells. Steep reductions in best demonstrated performance (BDP) have only been possible through the collaboration of Operators, Directional Drilling Service Providers and Original Equipment Manufacturers alike.

However, as lateral lengths continue to increase, so do expectations for run time, mud motor horsepower, torque capacity of transmissions, fatigue life of connections, stator durability, and so on. Items that must be addressed by the industry include:

- Are rigs keeping pace with mud motor torque outputs and increasing differential pressures?
- Do transmissions and drivelines hold up to the new generation of power sections?
- How can we continue to increase performance and improve reliability?
- Are we capturing relevant downhole data and processing it in a meaningful way to influence decisions?
- Is the objective still a single run interval or is the mud motor the limiting factor?
- Will the mud motor be replaced by rotary steerable systems?

The topic is timely and looks to engage the industry to answer these questions and many more. We will hear from leading subject matter experts, address performance engineering and operational practices and share the latest technical innovations. I look forward to seeing you in Houston, November 1 and 2 at the 2018 IADD Annual Technology Forum featuring Mud Motors.

Sincerely,

Tim Barnard
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