AFFIRMED PowerFit motor provided horsepower needed to meet Permian operator’s production target, mitigated potential reliability issues

**CHALLENGES**

- Well completed with 5 1/2-in., 23 lb casing to mitigate damage from frac forces in adjacent wells and lateral forces of the formation
- Completion scheme allowed for no ideal ESP solution
  - 3.75-in. OD motors required triple-tandem configuration and still did not provide the HP necessary to achieve 2,400 BFPD production target
  - Fluid velocity past 3.75-in. motors did not provide the best motor cooling effect

**SOLUTION**

- Installed an ESP system at a setting depth of 9,130 ft; equipment included:
  - AFFIRMED™ PowerFit 4.20-in. motor
  - GRINDSTONE™ abrasion resistant pumps
  - Tandem WHIRLAWAY™ gas separator to handle gas entrained in the fluid
- LOOKOUT™ monitoring service to optimize the ESP system

**RESULTS**

- AFFIRMED PowerFit motor provided enough horsepower to produce as much as 3,600 BFPD, exceeding customer’s target
- Improved reliability and customer’s damaged equipment exposure by reducing the number of components in the well vs. a 3.75-in. motor
- Reduced installation time vs. a 3.75-in. motor
- Optimized fluid velocity at 7 ft per second at 2,600 BFPD flow rate with clearance of .47-in. drift
- Eliminated need for intermediate ESP installation as production rate declined
  - AFFIRMED PowerFit motor HP rating allows for the use of pumps with a wider operating range, eliminating one install

**Fluid Velocity Comparison:**

- AFFIRMED PowerFit motor: Fluid velocity for flow rates of 500 – 4,500 BPD is within recommended range
- 4.56-in. motor: Fluid velocity for flow rates below 2,000 BPD is within recommended range; fluid velocity for flow rates above 3,000 BPD is a concern for erosion related issues