



AccuSteer Measurement Suite Saves Client 63 Hours of Rigtime with Advanced Drilling Techniques

An operator drilling horizontal wells to develop a the Wolf Camp formation in West Texas faced many challenges. Drilling risks were high since the Wolf Camp is notorious for having significant directional influence, resulting in many large corrective slides to stay in the target window. Because of the frequency and magnitude of the slides there was a need to decrease tortuosity and reduce sliding time.

Optimize well placement with AccuSteer

The operator used AccuSteer™ Well Placement System for optimal well placement within the target reservoir. The system provided real-

time near bit continuous inclination, stick slip, and downhole weight-on-bit measurements. The real-time near bit continuous inclination information enabled the team to place the entire lateral section of the well within the target zone while reducing the number of slides and overall wellbore tortuosity and dogleg severity.

	Well #1 Standard MWD	Well #2 AccuSteer w/ CINC and DWOB	Benefit
Number of slides	84	53	Reduced tortuosity
Slide time	129 hours	83 hours	46 Hours eliminated = \$134K saved
Max dogleg severity	9.14	6.07	Smoother casing run
Check shots surveys	101	0	17 hours eliminated = \$49K saved (At \$70K/day spread rate)
Slide footage	2,327 ft.	1,652 ft.	Reduced torque and drag
Torque and drag	Forced to rotate to TD	Freedom to slide to TD	Enhanced directional capability

Two 9,000 ft. laterals were drilled in the Wolf Camp formation on the same pad. Well #1 was drilled using a traditional MWD system, while well #2 was drilled using the AccuSteer system. The data speaks for itself.

Challenge

- Wolf Camp formation notorious for large directional influence, in some cases building or dropping 9 degrees per 100 feet
- Large and frequent corrective slides needed to get the wellbore back on track
- High tortuosity and increased sliding time
- Goal – outperform previously drilled wells using advanced measurements and directional drilling techniques

Solution

- Use AccuSteer Well Placement System Transmission of real-time near bit inclination, stick slip, and downhole weight-on-bit to optimize the directional drilling process

Results

- Using AccuSteer, greater positional awareness from the near bit inclination allowing for earlier directional corrections, reduced number of slides, reduced overall tortuosity and dogleg severity.
- Downhole weight on bit provided the information necessary to optimize surface parameters to get maximum weight transfer to the bit.
- The stick slip measurement gave visibility to hazardous drilling condition so that corrective action could take place before problems occurred, getting the well to TD failure free.