CASE STUDY: PERMIAN BASIN, UNITED STATES

Cutting-edge HFTO dampener improves drilling performance, minimizes BHA damage in Permian

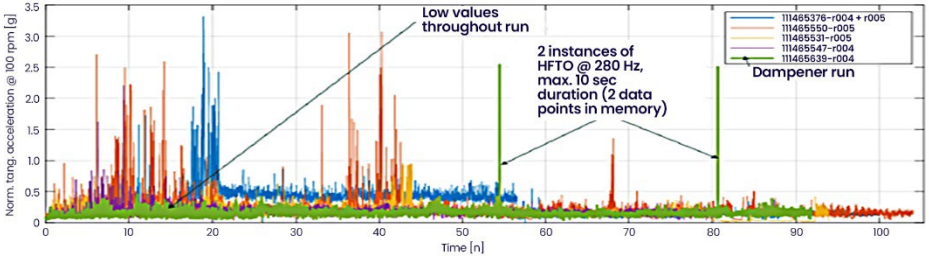
CHALLENGES

- Excessive lateral and tangential vibrations experienced while drilling
- High-frequency tortional vibrations (HFTO) were leading to:
  - Excessive BHA damage and premature tool failures
  - Multiple, unplanned trips
  - Greater cost-per-foot and AFE spend
- Unproven 3rd-party tool with differential movement at high loads

SOLUTION

- Application-specific setup incorporating a GuardVibe™ high-frequency torsional oscillation dampener to address problematic downhole dysfunctions
- Robust BHA containing a 4¾-in. Lucida™ advanced rotary steerable service
- High-strength threads (BHI-XT3)

Date	Target	Ft Drilled	Circ Hrs	Drill Hrs	ROP	Comment
Oct 13	Wolfcamp B3	14,141'	103.7	80.7	175.2	1 Run to TD
Oct 26	Wolfcamp B3	14,194'	109.1	87.2	162.9	1 Run to TD



The addition of the GuardVibe™ dampener ensured low vibration values throughout the run and prevented premature tool failure.

RESULTS

ZERO HFTO
impact on WOB and ROP

No restrictions
in bending movement

Superior
drilling efficiency and performance

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