

Case History: HydroPull™



65 Composite Plugs Drilled in Permian Basin in a Single Run with a HydroPull™ Tool

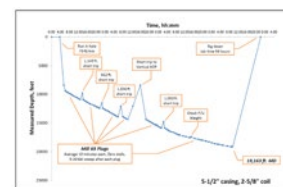
Case Study, Spraberry Trend, Midland County, TX

- Casing 5 ½-in. 20 lb./ft.
- KOP 8,400 ft. TVD; PBTD 19,163 ft. MD
- 2 ⅝-in. Coil Tubing
- 65 Composite Plugs

This near record well cleanout involved milling out a total of 65 composite bridge plugs from a lateral nearly 10,000 ft. long in a 19,163 ft. MD horizontal well. The liner was 5 ½-in. and the job was run on 2 ⅝-in. CT. The 3 ⅛-in. BHA consisted of a motor head assembly, bi-directional jar, hydraulic disconnect, screen sub, 3 ⅛-in. High Flow-High Impact Tempress HydroPull™, 3 ⅛-in. Oil States Energy Services motor and a 4 ⅝-in. tri-cone rock bit. Water with friction reducer was pumped at 3.5 bpm increasing to 4.5 bpm towards the toe of the lateral. The wellhead pressure ranged from 1,350 psi to 2,000 psi and the pump pressure ranged from 3,900 psi to 5,600 psi. All 65 plugs were milled without incident and gel/pipe-on-pipe sweeps and short trips were utilized to ensure a good cleanout of sand and plug debris.

This job was completed in 94 hours in a single HydroPull™ run with an average plug milling time of 10 minutes per plug.

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