## Case History: HydroPull™



## 73 Plugs Drilled in Eagle Ford Shale with 2 $^3/_8$ -in. Coiled Tubing and a HydroPull<sup>TM</sup> Tool

Case Study, Eagle Ford Shale, Burleson County, TX

- Casing 5-in. 18 lb./ft.
- PBTD 15,302 ft. MD
- 2 3/8-in. Coiled Tubing
- 72 Composite Plugs plus 1 Cast Iron Bridge Plug

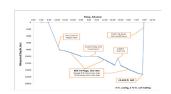
The Tempress HydroPull milled a total of 72 composite bridge plugs plus 1 Cast Iron Bridge Plug from a horizontal lateral almost 7,300 ft. long to a total measured depth of 15,302 ft. The casing was 5-in. and the job was run on 2 \(^3\)%-in. coiled tubing. The 3 \(^1\)%-in. BHA consisted of a weld-on coil connector, a dual back pressure valve, a set of jars, a hydraulic disconnect, a screen sub, a 3 \(^1\)%-in. High Flow-Medium Impact Tempress HydroPull, a 3 \(^1\)%-in. high torque motor and a 4-in. 5-bladed reverse clutch mill.

High viscosity gel sweeps in volumes of 10 bbls followed the milling of each plug and were utilized in conjunction with the powerful annular pulses generated from the HydroPull to clean debris from the wellbore at 4.5 bpm. A 2,000 ft. short trip was also utilized after plug 47. A 20/10/10 bbl – sweep/spacer/sweep was pumped as the final sweep just prior to pulling out of the hole.

All 73 plugs were milled with minimal stalls and with consistent weight supplied by the HydroPull. The wellhead pressure ranged from 2,500 to 2,900 psi and the pump pressure ranged from 5,600 to 7,000 psi.

All 73 plugs were milled in 48 hours with a set down weight of 1,800 to 3,000 lbs, and an average plug milling time of 9.8 minutes per plug.

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