Operator Efficiently Drills 6⅛-Inch Long Deviated Section

MATURE FIELDS

ENGINEERED DRILLING SOLUTION DELIVERS MORE PRECISE DIRECTIONAL CONTROL, MAXIMIZES ASSET VALUE

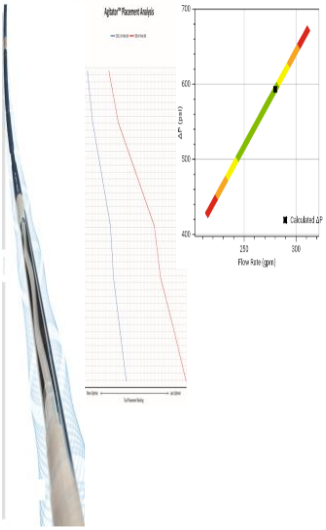
THAILAND

OVERVIEW

An operator in Thailand needed to drill a 6⅛-in. long tangent section with a steep inclination of ±60°. They planned on using a 5-in. TerraForce™ positive displacement motor and Quasar Trio® measurement-while-drilling/logging-while-drilling (MWD/LWD) triple-combo service to provide an IADC rate of penetration (ROP) of 30 fph, while maintaining precise directional control.

Halliburton Sperry Drilling proposed a customized, multi-component BHA design, in conjunction with an Agitator™ tool to improve weight transfer to the bit. The section was successfully drilled to total depth (TD), which resulted in an interval length of 6,194 ft (1,888 m) MD with an inclination of 59°. The average on bottom ROP was 55.45 fph – IADC ROP of 40 fph. The optimized Agitator placement led to minimal vibration and no interference with MWD telemetry.

The Sperry Drilling engineered solution and performance met customer expectations to maximize asset value and, on the strength of the performance, the operator decided to grant Sperry Drilling a total of six extra wells.



COMPONENT DATA	
Item #	Description
1	6 1/8" PDC MDi416LPX
2	5° Motor 6/7 - 6.0 stg Gp 4 (500-046)
	Btm Sleeve Stabilizer
3	5° Float Sub (SOLID Valve)
4	4 3/4" DM Collar
5	4 3/4" Slim Phase 4 Collar 175C
6	4 3/4" ALD Collar 175C
	Stabilizer
7	4-3/4" CTN
8	4 3/4" PWD 175C 25KSI
9	4 3/4" MWD HOC
10	X/O 3-1/2"IF P x XT-39 B
11	5 x 4" HWDP (XT-39)
12	X-Over Sub (XT39P x 3-1/2"IF B)
13	4-3/4" SledgeHammer Jar (3 1/2" IFPvB) 76 K \ 36 K \ 30 S
14	X-Over Sub (3-1/2"IF P x XT39B)
15	12 x 4" HWDP (XT-39) 4 STDS
16	PTT X/O XT-39P x 3-1/2" IF B
17	4-3/4" NOV Agitator
18	4-3/4" NOV Shock Sub
19	PTT X/O 3-1/2" IF P x XT-39 B
20	9 x 4" HWDP (XT-49) 3 STDS

Proposed BHA design, listing components, featuring a 5-in. TerraForce™ motor and a 4¾-in. Agitator.