

CASE STUDY: 7" HSRT: Hi-Speed Reaming Tool Reams Through Unstable Formation With Tight Spots and Cavings, Successfully Landing Casing At TD - ROMANIA | case study no. 0036

Overview

Date: 06 Nov 2019
Location: Romania
On/Offshore: Onshore
Open Hole: 8.50"
Section Length: 2,137.5 meters
Casing Spec: 7", 29 ppf, P110, TSH 523 Wedge
Location: Claystone, calcareous, claystone, marls.
Hole Issues: Wellbore instability, shale cavings

Objectives

Run 7" casing with the 7" HSRT: Hi-Speed Reaming Tool to target TD in the Meotian Formation at 2,137.5 meters.

Run and ream casing through tight hole and cavings by utilizing the unique hydraulically rotated cutting structure of the HSRT.

Tool Deployment / Execution

Picked up and made up 7" HSRT shoe track, function tested it and then continue running in hole to 9 5/8" casing shoe at 824 m. Casing RIH continued to 1,030 m.

Hole restriction was encountered @1,060 m, pumps were engaged 1400 LPM, casing was worked but no progress was made. String was picked up and flow increased to 1600 LPM casing and HSRT reamer was lowered back down to 1,060 m and worked past obstruction.

RIH operations continued and HSRT was used continuously to ream hole restrictions with flow rates ranging between 1400 LPM to 1600 LPM until casing reached TD @2,130 m. Total pumping hours through the tool was 43.75 hrs.

Drill-out Performance

Bit: 6" PDC
Duration: 1 hrs
Parameters: 610 LPM, 100 rpm, 3.5 tons



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Project Results

The Hi-Speed Reaming Tool successfully landed the 7" casing string at TD through very challenging wellbore conditions. The tool was only run at about half its reaming / flow rate capacity but managed to ream through the encountered multiple hole restrictions.

Well Profile

