Wireline Services, MOT Tool Perforate Long String While Avoiding Damage to the Short String



Weatherford wireline services provided an efficient rigless intervention that doubled operational efficiency and incurred no additional nonproductive time (NPT).

Objectives

- Restore production from 0 to 35,000 m³/d in the long string of a dualstring completion, and avoid damage to the short string.
- Avoid lost production and NPT resulting from a stuck perforating gun.

Our Approach

- Weatherford deployed the magnetic orientation tool (MOT), a device that enables distinction between two completion strings and orients the perforations away from the short string. To avoid gun sticking issues after detonation, the team selected a link system gun that fragments into small pieces upon firing.
- To increase operational efficiency, the Weatherford team increased the length of the gun from 6.5 to 10 ft (2 to 3 m) and increased the firing density to 6 spf.
- During each of the four runs, the team ran the MOT tool in combination with the link system. The MOT accurately identified the short string, which enabled the operator to orient the firing system away from it.
- Each perforation stage was completed without additional NPT or gun sticking issues.

Value to Client

- Using the Weatherford wireline perforation services and the MOT tool, the team perforated the long string without damaging the short string.
- The team doubled operational efficiency by reducing the number of perforation runs.
- The operation incurred no additional NPT or lost production.

LOCATION

Adriatic Sea, Italian Sector

WELL TYPE

Offshore gas

COMPLETION TYPE

Dual string

CASING SIZE

7 in. #29ft-lb

TUBING SIZE

Dual 2-3/8 in. #4.7 ft-lb

LONG STRING TUBING DEPTH

0 to 12,746 ft (0 to 3,885 m)

SHORT STRING TUBING DEPTH

0 to 12,231 ft (0 to 3,728 m)

GUN LENGTH

10 ft (3 m)

FIRING DENSITY

6 spf

PRODUCTS/SERVICES

- Wireline services
- MOT tool
- Link gun

