

REAL RESULTS

Integrated System Isolates Unstable, Horizontal Zone, Protects Production Zone from Cement Damage



Objectives

- Run a 4 1/2-in. combination blank/slotted production liner with a BULLDOG[™] annulus casing packer (ACP[™]) and hydraulic stage tool through an unstable, horizontal section with an 80° inclination.
- Provide zonal isolation by cementing the blank liner above the slotted production liner without allowing cement to penetrate the slotted liner or production interval.

Results

- Weatherford personnel deployed Weatherford's floating junk bonnet, rotating packer actuator, R running tool, and retrievable cementing packoff RSM running tools to work the liner through the unstable formation with slackoff/pickup.
- To prepare for zonal isolation, Weatherford provided an integrated solution comprised of a WTSP4R packer, premium hydraulic-static hanger, a holddown sub, a 754PD hydraulic stage tool, a BULLDOG ACP packer, and a WLC landing collar.
- After the liner was successfully set at 11,486 ft (3,501 m), and the running tools were released, the *ACP* packer was inflated with mud. The hydraulic stage tool opened, and full returns were seen at the surface. The 854 SSR top plug displaced cement and closed the stage tool at the plug bump, preventing backflow and enabling the cement to provide proper zonal isolation.
- The entire operation incurred zero recordable incidents, nonproductive time, and operational problems.

Value to Client

- Weatherford's integrated solution using the BULLDOG ACP packer enabled Eni Mediterranea to complete and test the well successfully.
- By avoiding cement damage to formation permeability, Eni Mediterranea avoided the cost of perforating and cleanup.
- Optimal production was maintained by keeping the production zone annulus and slotted liner clean and protected from cement penetration. Additionally, the inflated ACP system provided a high-pressure integrity seal.

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Pietro Antonuzzo Superintendent Pierto.Antonuzzo@enimed.eni.it Weatherford's *BULLDOG ACP* packer as shown in the chart was successfully inflated, enabling the stage tool to open properly and the cement to isolate the problem zone.

Client Eni Mediterranea S.p.A.

Location Sicily, Italy

Field Gela field, number 39

Well Type

Onshore, production oil well

Hole Size

6 in.

Depth

- 11,945 ft (3,641 m) total depth
- 11,486 ft (3,501 m) liner shoe depth
- 9,927 ft (3,026 m) top of liner depth

Casing

4 1/2-in., 12.6-lb/ft ADMS

Maximum BUR

6.6° at 98 ft (30 m)

Products/Services

- BULLDOG ACP annulus casing packer
- WTSP4R liner top packer
- WPHR liner hanger
- HDS holddown sub
- 754PD hydraulic stage tool
- 854 SSR top plug
- WLC landing collar

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