



Weatherford®

REAL RESULTS

ESS® System Extends Technical Limits with Single-Trip Expansion in NW Australia



Objectives

- Install Weatherford's ESS system to increase well bore stability and achieve high gas production free of solids.
- Install a tie-back hanger/packer capable of withstanding annular pressure between the upper completion and the annulus below.

Results

- The sand exclusion was installed successfully, comprising a 5 1/2-in., 18-ppf, 230-micron Petroweave® with the ESS lower sand-face completion design hung from a large bore EXR hanger/packer.
- Initial expansion used a solid cone with weight-on-bit (WOB) followed by Weatherford's axial compliant expander (ACE®) tool which compliantly expanded the ESS assembly to the well bore. An isolation seal assembly (7.375 in.) was also installed above the EXR packer to isolate the annulus.
- Cost and time was within budget, with total ESS installation time at less than two days, beating technical limits.
- A high production rate free of solids was achieved; higher production rates can be achieved with a larger choke size.
- This and other successful ESS installations to date have demonstrated the viability of displacing drill-in fluid to base oil in 8 1/2-in. open hole sections to the 9 5/8-in. ESS liner hanger (post-running ESS) to mitigate any related formation damage concerns.

Value to Client

- Installation was deployed, set, and expanded in one successful trip.
- Installation was within time constraints and budget.



Weatherford's successful ESS installation ensured the completion was deployed, set, and expanded in one successful trip.

Client

Woodside Energy Ltd.

Location

Offshore NW Shelf Australia

Field

Perseus Over Goodwyn (POG)

Well Type

Gas producer

Setting Depth

10,183.7 ft (3,104 m) Measured Depth from the Rotary Table (MDRT)

Casing

9 5/8-in., 47 ppf

Hole Size

8 1/2-in. open hole

Products/Services

- ESS system
- ACE tool
- EXR hanger/packer

ESS Length

415 ft (126.5 m)

