

Isolating High-Pressure Zone

CASE HISTORY

North Sea

Challenge

Isolate a high-pressure interval and drill the next section, which consisted of a weaker formation, with a lower mud weight.

Objective

Install a high-collapse SET® expandable liner to case off the trouble zone.

Results

The 7-5/8 x 9-7/8 in. openhole SET liner was used to case off the trouble interval that was projected to experience a pressure reduction resulting in a collapse pressure greater than conventional SET system values. The thick-walled pipe provided a ~60% increase in collapse pressure. The robust system combination made for a more responsive technology that enabled successful expansion even in challenging conditions and circumstances of the North Sea environment. The system easily handled the required expansion pressures of 7,300 psi for initiation and 4,200 psi average.

Value Added

By isolating the high-pressure zone and being able to drill ahead:

- A 5 x 4-1/2 in. completion was achieved
- The operator estimated they extended the production life of the well for seven years

