



# ReLine MNS



## 6500ft ReLine MNS enable's HP stimulation of under-torqued US Land well

### BACKGROUND

A significant number of improperly torqued 5 1/2" casing connections on new completion resulted in a failed pressure integrity test. Therefore, the planned high-pressure stimulation could not be performed until a + 6000ft isolation solution was identified & deployed to re-instate wellbore pressure integrity.

Alternative options to remediate this well:

- 1) Cut and pull the 5-1/2" casing down to the transition connection at 6,299 ft
- 2) Run and cement a 4" flush joint liner all the way down to TD at 24,000 ft MD.

Cut and pull operations were deemed difficult as TOC in the annulus higher than 6,200 ft. Therefore, this would require wash-over operations before the under torqued 5.5 casing could be pulled. Running the 4" flush joint liner would further reduce ID's and would add a significant amount of friction pressure to the high rate frac. These wells are typically fraced at 100 BPM, and maximizing ID ensures no loss of energy that is needed to create this complex fracture network.

### SOLUTION

A high pressure, 4.250" pre-expanded variant from flagship ReLine MNS solution was selected as the optimal solution for the following reasons: -

- Provides the ability top deploy a continuous 6639ft expandable casing patch, to isolate all of the under torqued connections
- Premium MTM seals provide the pressure ratings required to enable the high pressure frac of this well
- Provide a post expansion ID to enable the deployment of frac plugs below the installed patch
- Also provide further value by removing the need for an additional run to remove the shoe form this casing isolation patch

### ACHIEVEMENT

A 6,630 ft ReLine MNS liner deployed to surface, with premium metal to metal seals selected to isolate anticipated 12,000 psi frac pressures.

The expandable ReLine MNS liner was successfully expanded across the target depths.

This isolated all the leaking casing connections in the vertical section and a 12,000psi pressure test was conducted for 15 minutes.

The horizontal section of the well (13,500 – 24,000 ft) will be subsequently fraced with plug and perf operations.

Slim OD frac plugs will drift our smaller patch ID and still set inside the standard 5.5" casing ID below, and the ReLine MNS will be exposed to full frac pressure.

### PROJECT DETAILS

Location : US Land  
Solution : HP 4.250" ReLine MNS  
Patch Length : 6639ft  
Test Pressure : 12,000psi

