

Zone Seal Plug Eliminates Pre-Set Risk, Provides Isolation For Reliable High-Pressure Casing Testing

Objectives

- Perform casing pressure testing prior to first frac stage.
- Remove nonproductive time (NPT) risk and simplify operations.
- Utilize existing wireline bottomhole assembly (BHA) to ensure a smooth operation.

Our Approach

- After consultation with customer engineering and operations personnel, Weatherford experts designed, tested, and implemented a simple, economical solution which retained the ability to achieve high-pressure tests while removing pump-down risk.
- The zone seal plug deployed on standard third-party style setting tools (traditional and disposable) and released in the same way a top set frac plug does, meaning the procedure was consistent throughout frac operations.
- Instead of a traditional composite bridge plug (which runs the risk of pre-setting during pump down operations), the zone seal plug achieved the same result without any external components or moving parts.
- The rounded nose was designed to partially deform when landing on the seat, providing reliable permanent isolation.

Value to Customer

- All five wells on the pad successfully completed the required 30-minute 9,700 psi (66.8 MPa) test without any pump-down problems or operational issues.
- Instead of setting above the wet shoe sub, the zone seal plug landed in the wet shoe sub's top sub, saving previously wasted lateral length.



Zone seal plug made up to standard pump-down BHA prior to deployment.

LOCATION

Permian Basin, Texas

WELL TYPE

Unconventional, horizontal

CASING SIZE AND TYPE

4-1/2 in., 11.6 lb/ft

PRESSURE

9,700 psi (66.8 MPa) for 30-minute casing pressure test

OTHER

5-well pad

PRODUCTS/SERVICES

Zone seal plug (ZSP)

