ZoneSelect® System Increases Stage Count from 32 to 50, Saves $2 Million in Completion Costs

Objectives

- Maximize reservoir exposure and drainage by increasing the number of fracturing stages in an openhole 10,195-ft (3,107-m) lateral from 32 to 50 stages.

Our Approach

- The operator could choose either an openhole completion using ball-drop-activated frac sleeves or a cemented plug-and-perf completion. The operator selected an openhole completion because of the significant cost and time savings associated with not cementing the wellbore, pumping down plugs, and milling plugs.
- Weatherford installed 4 1/2-in. ZoneSelect SingleShot MXZ frac sleeves because they can fracture up to 59 stages in a single trip compared to the industry average of 40 stages. In this well, SingleShot sleeves increased the stage count from 32 to 50.
- In each zone, the Metallic Hybrid (MH) Invisiball® stimulation ball shifted the ports on the frac sleeves open. After stimulation, the balls dissolved downhole to eliminate the need for milling.
- Fraxsis® swellable packers provided reliable zonal isolation against pressures up to 8,000 psi (55.1 MPa).

Value to Client

- Compared to a 50-stage cemented plug-and-perf completion in the same area, this 50-stage openhole completion saved approximately US $2 million—or US $40,000 per stage.
- By increasing the stage count, the Weatherford ZoneSelect system enhanced reservoir contact.

LOCATION
North Dakota

FORMATION
Bakken Shale

WELL TYPE
Onshore, horizontal, openhole, oil

HOLE SIZE
6 in.

CASING SIZE
4-1/2 in.

TRUE VERTICAL DEPTH
11,077 ft (3,376 m)

MEASURED DEPTH
21,272 ft (6,483 m)

LATERAL LENGTH
10,195 ft (3,107 m)

SURFACE TREATING PRESSURE
8,000 psi (55.1 MPa)

PRODUCTS/SERVICES
- ZoneSelect SingleShot MXZ frac sleeve
- ZoneSelect Fraxsis swellable packer
- MH Invisiball stimulation ball

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