DynaTrac™ Real-Time Depth Correlation System

ON-DEMAND REAL-TIME BOTTOMHOLE POSITIONING WITHOUT INTERVENTION

Spotlight on new TECHNOLOGY℠

OVERVIEW

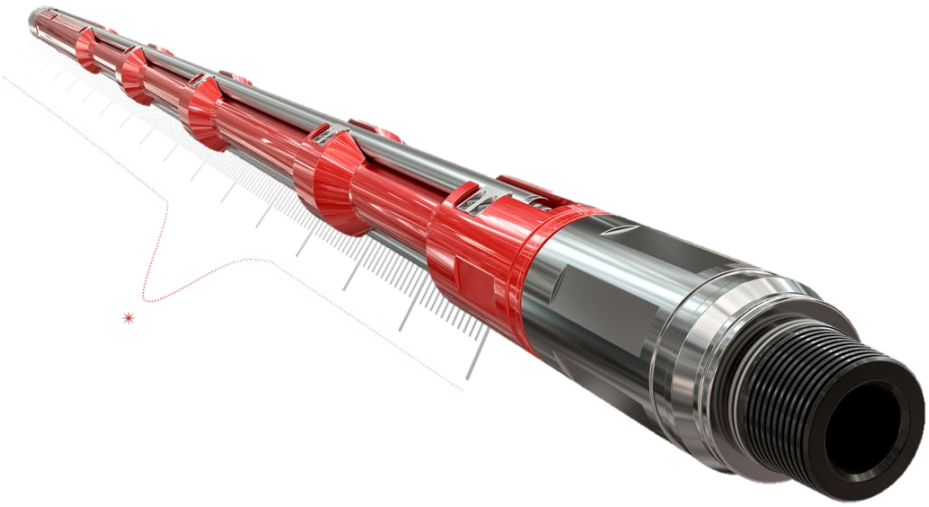
The DynaTrac™ real-time depth correlation system increases efficiency during operations that require accurate bottomhole assembly (BHA) depth or position with on-demand positioning throughout well operations. As part of the Halliburton RezConnect® well testing system, the DynaTrac system eliminates uncertainty of BHA's position without wireline intervention or workstring manipulation. This solution consists of an array of gamma sensor functions as a real-time downhole ruler able to track the BHA movements due to expansion or contraction of the workstring.

FEATURES

- On-demand BHA positioning
- Integral part of the BHA
- Two arrays at 180-degree phasing to ensure signal quality in larger casing sizes
- Tracks BHA position throughout operations with a resolution < 1 foot
- Positions tools accurately at required depth
- Current position can be retrieved at any time during the job
- Utilizes the proven DynaLink telemetry system for communication

BENEFITS

- Reduces health, safety, and environmental (HSE) risks of wireline intervention or pipe manipulation
- Requires no wireline intervention or workstring manipulation
- Eliminates uncertainty of BHA position
- Tracks movement of BHA during shut-in period when using a production packer
- Programmable "memory mode" operation provides historical time record of BHA position
- Saves rig time and improves HSE performance



APPLICATIONS

The DynaTrac real-time depth correlation system is positioned in the BHA so that it is adjacent to a radioactive (RA) marker or or a precision identified perforations (PIP) tag in the casing of known depth. It is used in conjunction with the DynaLink® telemetry system for real-time communication and control. The DynaTrac system eliminates uncertainty of packer setting depth and tubing-conveyed perforating (TCP) guns by enabling confirmation of position with a simple button click in the software application. Unlike competing methods that require wireline intervention or workstring manipulation to determine position, the DynaTrac system provides full-time on-demand positioning even after the packer is set. Positioning packers and TCP guns without wireline intervention and without workstring manipulation helps ensure accurate positioning under all conditions, including in deep waters with high ocean heave.

When used in conjunction with a production packer and seal assembly, the DynaTrac system tracks movements of the BHA during well testing operations, allowing engineers to improve reservoir analyses. Workstring expansions and contractions due to thermal effects are tracked throughout operations, using the DynaTrac system's sensor array. The depth of the tester valve and the positions of gauges are available in real time, and are recorded to provide reservoir engineers with the information necessary to perform accurate analyses.

DynaTrac™ Array Specifications

Outer Diameter, in. (cm)	1.27 (3.23)
Makeup Length, in. (cm)	190 (4.83)
Weight, lb (kg)	37 (17)
Absolute Pressure, psi (bar)	23,300 (1606)
Useful Array Length, ft (m)	13.5 (4.1)
Operating Temperature, °F (°C)	350 (177)

Note:
» Meets material service requirements of ANSI/NACE MR0175/ISO 15156-1 for H_2S

DynaTrac™ Carrier Specifications

Maximum Outer Diameter, in. (cm)	5.53 (14.1)
Minimum Inner Diameter, in. (cm)	2.25 (5.71)
Makeup Length, ft (m)	23.58 (7.19)
End Connections	3⅞-in. CAS
Absolute Pressure, psi (bar)	25,000 (1723)
Differential Pressure, psi (bar)	15,000 (1034)
Maximum Tensile Load, lb (kg)	300,000 (136 077)
Maximum Torque Load, ft-lb (N-m)	11,000 (14 914)
Operating Temperature, °F (°C)	350 (177)

Note:
» Meets material service requirements of ANSI/NACE MR0175/ISO 15156-1 for H_2S

For more information, contact your local Halliburton representative or visit us on the web at www.halliburton.com

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