

Halliburton Free-Point Tool

SAFELY AND COST-EFFECTIVELY DETERMINE FREE POINT IN VERTICAL AND HORIZONTAL WELLS

OVERVIEW

When stuck pipe stalls operations, Halliburton Pipe Recovery Services can reduce costly nonproductive downtime. With single-trip operation, the Halliburton Free-Point Tool (HFPT) measures the changes in the pipe's magnetic properties and provides fast and precise free-point location without the repetitive stop and set measurements of traditional free-point tools. The tool compares logging passes to create a log in real time using new free-point technology. Correlating the free/stuck pipe region of the log with geological or petrophysical data can aid in root cause determination of the downhole condition.

- » First, the estimated stuck pipe region is determined with a stretch calculation.
- » Then, with the pipe in neutral weight, the base downlogging pass is made over the region of interest. Stretch is applied briefly to the pipe, and the pipe is returned to neutral weight.
- » A second uplogging pass is made.
- » An optional third logging pass can be made after torque is applied and released. The stretch and torque logging passes are compared to the base pass.
- » By comparing these measurements, the tool generates a continuous log that quickly and precisely identifies free, partial, and stuck areas in 2-foot increments.

CAPABILITIES

Free-Point Determination

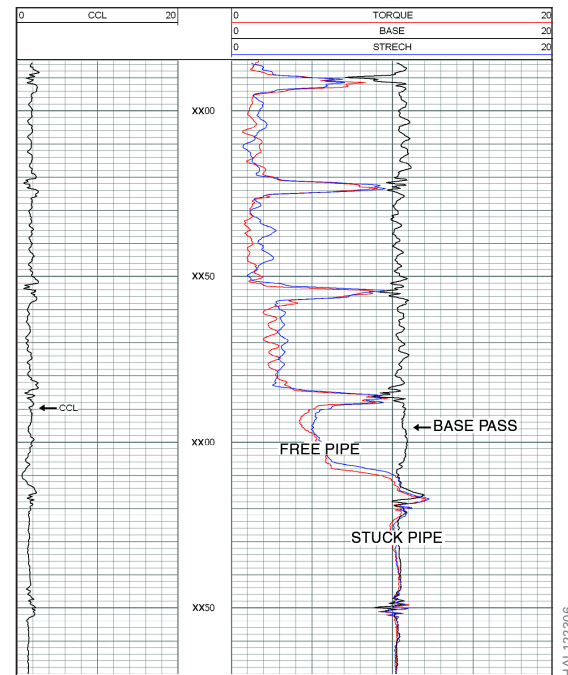
- » Halliburton Free-Point Tool: Continuous log for free-point determination
- » Traditional Free-Point Tool: Strain gauge measurement system

Back-Off and Severing Services

- » String shot and back off
- » Jet cutters
- » Chemical cutters
- » Radial cutting torch
- » RF-safe detonator
- » Drillpipe/drill collar severing tools

Logging Services

- » Pipe evaluation log
- » Temperature/noise



Halliburton Free-Point log in 4 1/2-in. drillpipe in a 14,000-ft (4,267-m) horizontal well. With a one-trip operation, the HFPT, tracted downhole, quickly and accurately identifies free vs. stuck pipe in 2-ft increments.

BENEFITS

- » Wellsite Safety: Minimal stretch and torque of pipe
- » Quick: Fast and accurate operation requires less rig time, decreases costs
- » Simple Operations: Easy transport and uncomplicated measurements

Halliburton Pipe Recovery Services provides:

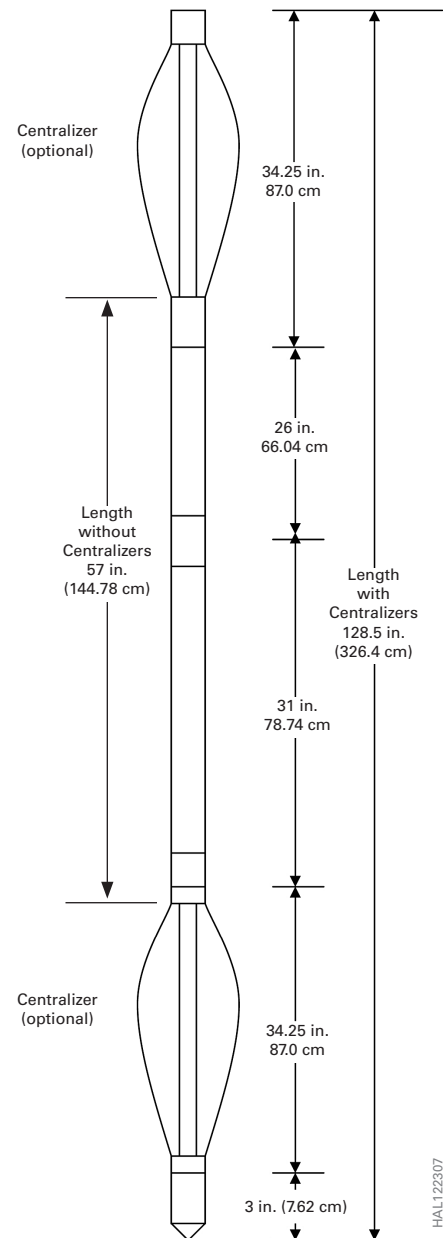
- » Dedicated pipe recovery units and experienced crews
- » Conveyance flexibility:
 - Conventional deployment
 - Tractor
 - Pumpdown
 - E-coil
 - Coiled tubing for pressure actuated cutters

FEATURES

- » Stretch/torque applied and released only one time each to determine free point vs. stuck point
- » Operates in high-angle or horizontal wells and in high-strength alloys, coated, or concentric pipe
- » Easily pumped through drillstring, tubing, or casing to record free-point measurement
- » Operates reliably in difficult well conditions with no anchors or springs to set
- » Real-time operations and 24/7 satellite communications

Free-Point Indicator

Tool Size (OD)	1.69 in. (4.29 cm)
Length (including centralizers)	128.5 in. (326.4 cm)
Temperature Rating	350°F (177°C)
Pressure Rating	30,000 psi (207 MPa)



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

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