HALLIBURTON

COMPLETION SOLUTIONS | MULTILATERAL SYSTEMS

MillRite® milled exit multilateral system

Consistent, repeatable, and geometrically controlled exit windows save time and can eliminate costly "roll-off" problems common with conventional milling systems

MILLRITE® SYSTEM BENEFITS

- Applicable to existing (re-entry) and new wells
- Single-trip window machining
- Precise window geometry
- Window geometry and position control enables repeatable lateral re-entry for life of well
- Compatible with IsoRite® isolated multilateral completion system and FloRite® multi-string, multilateral completion system
- Enables existing main well to be produced to lower economic threshold
- Lower installation and maintenance costs relative to other Level 4 systems

MILLRITE SYSTEM FEATURES

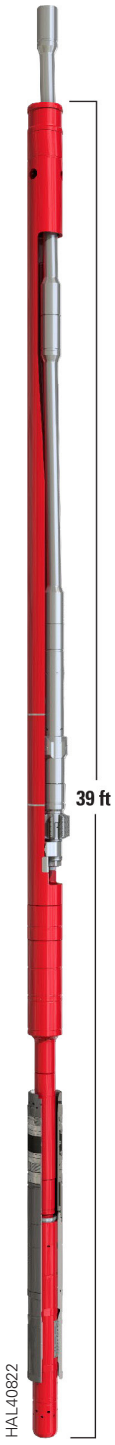
- Latch Coupling and anti-rotation anchor packer system used as the MillRite reference
- Durable machining head with integral circulation paths
- Track-guided system for precise window geometry and length
- Precise azimuth and depth control with the Latch Coupling in new wells or with anchor packer and Latch Coupling in existing wells
- Compatible with LatchRite® system for Level 2 and 4, the ReFlexRite® and FloRite systems for Level 5 junction creation and completion
- Integral barriers and junk subs for debris collection and control

The MillRite® system is designed for use in new or existing wells that are to be developed as multilaterals for the exploitation of additional zones or reserves. The MillRite system incorporates a special window milling machine that enables the creation of a near-rectangular window at a precise depth and azimuth on a repeatable basis via the use of the Latch Coupling anchoring system. This control of the window geometry and position makes the MillRite system windows particularly useful for TAML Level 2 and 4 wells, for which lateral re-entry and through-tubing re-entry are required, and in which TAML Level 5 completions can be installed. The MillRite system helps eliminate problems associated with conventionally milled windows whereby window geometry is typically elliptical and spiraled with no control over precise depth, orientation, or full-gauge section length. The MillRite windows are machined with an elongated full-gauge aperture along their entire length parallel to the axis of the casing. The straight, longer window geometry eliminates the dogleg severity problems that are seen when running lateral liners or tools into the lateral bore through conventionally milled windows.

MILLRITE® SYSTEM SPECIFICATIONS				
System casing size in (mm)	7 (177.8)	7 (177.8)	9-5/8 (244.5)	9-5/8 (244.5)
Casing weight range lb/ft (kg/m)	26 to 29 (38.7 to 43.2)	26 to 29 (38.7 to 43.2)	43.5 to 47 (65.0 to 70.0)	43.5 to 47 (65.0 to 70.0)
Window type	Milled	Milled	Milled	Milled
Anchor type	Latch Coupling	Anchor Packer	Latch Coupling	Anchor Packer
Lateral liner type	None, drop liner, washed-over transition joint			
Lateral hole size in (mm)	6 (152.4)	6 (152.4)	8-1/2 (215.9)	8-1/2 (215.9)
Lateral liner size in (mm)	4-1/2 (114.3)	4-1/2 (114.3)	7 (177.8)	7 (177.8)
Lower main bore access in (mm)	Full Gauge 6.059 (153.9)	Packer Bore 4 (101.6)	Full Gauge 8.525 (216.5)	Packer Bore 6 (152.4)

Typical MillRite system installation sequence (existing well)

1. Remove completion from existing well
2. Run in hole MillRite assembly with anchor packer and Latch Coupling. Orient and set. Mill window, and retrieve milling machine, leaving packer and Latch Coupling at anchored depth and orientation reference
3. Run LatchRite drilling whipstock with mills, and dress junction
4. Drill lateral as required
5. Run in hole lateral liner, and cement as required
6. Wash over lateral liner top, and retrieve whipstock to regain main bore access
7. Install completion, and flow well



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