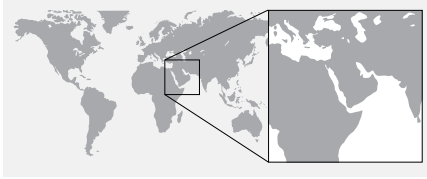


Cased Hole Exit Created in One Trip in Middle East

Archer Oiltools' X-it™ cased hole whipstock system and X-it™ single trip mill provides a clean, full gauge window and rathole.



Region: Middle East

Customer: National Oil Company

Case benefits

- Single-trip reliable, effective and efficient sidetracks
- 360 degree and low side exits improve target accuracy and reduce drilling time
- Confidence in system due to 300+ wells track record

Key capabilities

- Unique multiramp whipstock; carbide coated ramps
- Unique geometry combination mill; integrated pilot mill
- Tri-directional anchor slips provide positive anchoring

Typical Applications

- Sidetracks
- Multilaterals
- Controlled casing exit

For more information, contact your local Archer representative.

Challenge

A national oil company in the Middle East required a clean, full-gauge window and rathole for sidetracking with a 6 1/8" directional drilling assembly in a vertical well. The exit would be through a 7", 26-lbs/ft liner, at 8009 feet. A single trip casing exit was needed in hard Khuff formation.

Solution

Archer's 7" X-it™ cased hole whipstock hydraulic system was run with a 6,151" single trip mill set up with a tri-mill configuration. The X-it casing exit system (with an OD of 5,5") was run with a 6,151" single trip mill. The whipstock assembly was oriented 135,5 degrees using a gyro service, and anchored with a hydraulic actuated retrievable packer; the bottom of the packer was set at 8030 feet.

The single trip mill was then released from the whipstock for window milling to commence.

Full-gauge window & rathole in one trip

A 10-foot window and 9-foot rathole were milled in 2,5 hours and 4,5 hours respectively. The window was reamed and polished. A slide test performed through the window showed no torque or drag.

The single trip mill's lead mill was 1/4" under-gauge while the follow and dress mills were in-gauge when pulled out of the hole, confirming an excellent window condition. The subsequent 6 1/8" drilling assembly was able to pass safely and easily through the window and drill ahead.

Result

Provided a 10-foot window at 8009 feet in just 2.5 hours, and a 9-foot rathole in hard formation in 4,5 hours.

