

First Multilateral Geothermal Well in Indonesia Delivered with the TrackMaster Select™ Cased Hole Expandable Whipstock System

Operator achieves one-run window and rathole milling, setting a new performance benchmark in a ~15-ksi geothermal formation

Delivering Multilateral Geothermal Well Success Through the 13-3/8" TrackMaster Select™ Expandable Whipstock System with PDC Head Mill

A geothermal operator in Indonesia required a cased-hole (CH) sidetrack from 13-3/8" casing as part of a multilateral development project. The operation presented several challenges, including the need to exit into formation averaging 15 ksi while also creating a stable open-hole rathole suitable for second-leg drilling and completion activities, and ensuring the whipstock could be reliably retrieved after the second lateral was drilled.

To address these operational requirements, Wellbore Integrity Solutions (WIS) collaborated closely with the operator to identify the optimal system configuration. The selected 9-5/8" × 13-3/8" expandable hydraulic anchor provided the wide expansion range and high load-carrying capacity needed for dependable axial and torsional support in multilateral geothermal operations.

Combined with a full PDC head mill, the TrackMaster Select-CH system enabled efficient one-run creation of the casing window and rathole, delivering optimal milling times even in moderately hard formations. The 9-5/8" × 13-3/8" expandable whipstock was successfully set, and both the casing window and rathole were milled in a single run.

CHALLENGE

- Required a cased-hole sidetrack from 13-3/8" casing in a ~15-ksi geothermal formation
- Needed a stable rathole for second-leg drilling and completion
- Required reliable whipstock retrieval after the second lateral

SOLUTION

- 9-5/8" × 13-3/8" expandable hydraulic anchor for strong axial and torsional support
- Used a full PDC head mill with the TrackMaster Select-CH system to mill the window and rathole in one run

RESULT

- Completed a one-trip sidetrack with a 22-ft rathole in moderately hard formation
- PDC head mill achieved efficient milling with acceptable wear and a full-gauge exit
- Directional drilling BHAs passed cleanly through the window
- Whipstock system was retrieved easily using a standard retrieval hook



Following the drilling of the second lateral, the whipstock was retrieved smoothly — confirming system reliability, operational integrity, and best-in-class execution. This project represents the first multilateral well operation executed by WIS in Indonesia, marking a significant milestone for the team.

Recovery of the TrackMaster Select System

