

Critical Well Abandonment Success in Colombia

An 8000 Series ProMILL Duo* and a 8200 Series ProMILL* was utilized to complete a dual casing abandonment with a rock-to-rock barrier.



A challenging well abandonment operation in Colombia.

The leading National Oil & Gas Operator in Colombia reached out to the Wellbore Integrity Solutions' (WIS) team to assist in the strategic planning of a challenging Plug and Abandonment (P&A) operation. This required an extended length section milling interval for both the 9⁵/₈ inch and 13³/₈ inch casings prior to setting the cement plug for a permanent barrier. It was essential that this operation was carried out efficiently, with no environmental impact. The customer placed significant emphasis on the technology and Bottom Hole Assembly (BHA) optimization. The preferred solution was the 8000 series ProMILL Duo system.

Using integrated solutions and new technologies.

The 8200 ProMILL was deployed to cut the 9⁵/₈ inch inner casing, with a ProMILL Underreamer to effectively clean the residual annular cement. This approach removed the required rig time to cut and extract the cemented 9⁵/₈ inch casing from the surface. Subsequently, the 8000 series ProMILL Duo system was utilized to pass through the 9⁵/₈ inch inner casing and mill the 13³/₈ inch outer casing. Lastly, the ProMILL Underreamer facilitated a successful borehole enlargement operation for a rock-to-rock barrier.

Optimal swarf quality with WavEdge Cutter Technology.

The distinctive WavEdge cutter geometry enhanced durability, leading to superior Rate of Penetration (ROP), improved hole cleaning, and higher quality swarf.

WELL INFORMATION:

Location: Colombia

Casing Size: 9⁵/₈ inch x 13³/₈ inch

Depth: 3,480 ft to 3,532 ft



ProMILL Duo Section
Mill with WavEdge Cutter
Technology

CHALLENGE

The customer required a minimum of a 50 ft long permanent well barrier across 9⁵/₈ inch and 13³/₈ inch casings.

SOLUTION

WIS recommended and deployed a selection of well abandonment technologies to deliver the solution. The solution included the 8200 series ProMILL and 8000 series ProMILL Duo to mill 13³/₈ inch from inside of 9⁵/₈ inch casing. A 20 inch hole size was underreamed to enable rock-to-rock interface.

RESULTS

- A successful project execution that complied with local environmental regulations and delivered a 50 ft rock-to-rock barrier.
- Multiple technologies performed as anticipated during the project.
- First outstanding run of ProMILL Duo System in the Western Hemisphere.

