# NABORS

## Nabors Integra<sup>™</sup> MPD Ready Express & SmartDRILL<sup>®</sup> Significantly Reduced Days on Well in Vaca Muerta

Nabors has been setting records in Argentina with its integrated MPD offering, allowing the operators to efficiently and reliably run drilling services with the MPD skid integrated directly on the rig for quicker rig moves and one streamlined service.

#### Challenge

A major operator encountered stuck pipe issues due to formation destabilization and wellbore cleaning challenges, compounded by hightemperature, high-pressure wells with narrow drilling margins. The small operating window required precise control when ramping up and down, making wellbore stability, safety, and drilling efficiency difficult to maintain.

#### Solution

The Integra MPD system provided a stable pressure profile that effectively addressed lost circulation and hole collapse, common challenges in the Vaca Muerta region. With the MPD system integrated directly on the rig alongside SmartDRILL® and SmartROS®, dynamic drilling achieved consistent ramp-ups, offering superior adaptability to geological variations and enhancing both safety and efficiency. and ramp downs

#### Case Study Facts

Rig: 1211

LOCATION: Argentina

DETAILS:

Comparing Operator 1 vs Operator 2

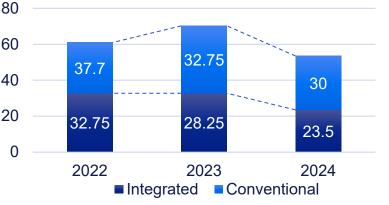
TIME FRAME: July - September 2024

### Results: Drilling Success in 8.5" 'fat' well

Nabors was able to successfully demonstrate that the SmartDRILL® and INTEGRA<sup>™</sup> MPD systems can work together to allow earlier ramp-downs and ramp-ups of the pumps, which results in flat time reductions. For example, the team ramped the pumps down while drilling and setting slips. The operator also experienced consistent ramp down times which when combined with the integration of the MPD controls allows smooth pressure build-up as pumps are shut down. The reduced rig set-up and tear-down times allow for faster connections due to enhanced wellbore stability, lower mud weights minimizing formation stress and collapse risks, and improved ability to maintain stable bottom hole pressure for smoother cleaning.

#### Impact

- ✓ Rotary ROP improved by 36%
- ✓ 40 % reduction in weight-toweight times during connections with SmartDRILL combination
- 6.5 days saved in flat time on the integrated vs convention service based on rig up and rig down times



#### Flat Time Reduction Analysis

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