

# SCREEN PULSE Separator and VERTI-G Dryer Reduce Mud Losses and Waste Volume to Save USD 36,910

Solids control system reduces fluid retention on drilling cuttings and increases fluid recovery on shakers during onshore operation in Argentina

**CHALLENGE**

Employ solids control equipment capable of handling the returns volume produced while drilling the first well in an established area with transportation and cost limitations.

**SOLUTION**

Use the SCREEN PULSE\* fluid and cuttings separator, the MONGOOSE PRO\* shale shaker, and a VERTI-G\* cuttings dryer to handle fluid and cutting returns while drilling.

**RESULTS**

Reduced mud losses 40%, saved more than 66 m<sup>3</sup> [413 bbl] of fluid, and reduced waste volume for disposal by 17%, resulting in a cost savings of USD 36,910.

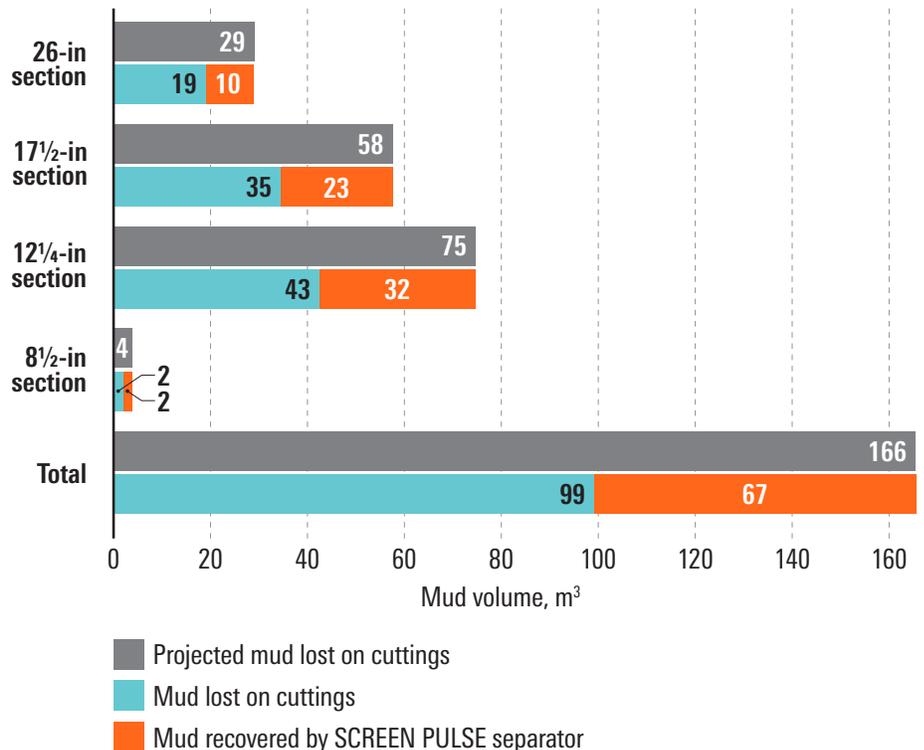


**Decrease mud on cuttings and improve fluid recovery**

An operator was drilling its first onshore well in Argentina’s Los Blancos field. The remote area presented a number of challenges, including equipment mobilization limitations, access to chemical products required for mud mixing, and high costs associated with drilling waste. The solids control equipment at the wellsite had to be capable of handling the returns volume produced while drilling the well under these operational conditions. To successfully drill and produce the well, the operator needed to reduce the water- and oil-base mud (WBM and OBM) retention on drilling cuttings, and also increase fluid recovery on the shakers.

**Deploy SCREEN PULSE separator and VERTI-G dryer to overcome logistical challenges**

To meet the operator’s needs, M-I SWACO recommended its SCREEN PULSE separator be deployed on all three of the primary shakers, along with a VERTI-G dryer to use for sections drilled with OBM. Increasing the recovered drilling mud and reducing waste volumes directly reduces the logistics required for transporting mud-mixing chemicals and moving waste volumes for treatment and final disposal. Increasing the capacity for fluid handling also enables the operator to better adapt to constantly changing wellsite conditions.



The SCREEN PULSE separator recovered more than 66 m<sup>3</sup> [413 bbl] of mud that would otherwise have been lost to the waste disposal stream.



The SCREEN PULSE separator and a MONGOOSE PRO dynamic dual-motion shale shaker, with freestanding control console, were used to reduce mud losses by 40%.

The operator drilled the first section of the well (26 in and 17½ in [66 cm and 44.5 cm]) with water and bentonite and the intermediate section (12¼ in [31.1 cm]) with MEGADRIL\* oil-base temperature-stable invert-emulsion drilling fluid system. The production section of the well was drilled with FLOPRO NT\* water-base reservoir drill-in fluid. The SCREEN PULSE separator operated continuously during the drilling except when samples were collected.

To quantify the effects of the SCREEN PULSE separator in both on and off modes, a series of tests was run on samples taken from the primary shakers, the MONGOOSE PRO shale shaker (used to dry cuttings from sections drilled with WBM), and VERTI-G dryer discharges.

#### Reduced fluid loss, improved drill cuttings dryness, and decreased costs

- Implementing the SCREEN PULSE separator, which enabled the use of a finer-mesh screen, decreased the solids size separation cut point. This improved the efficiency of the solids control equipment, resulting in more effective separation.
- Operating the SCREEN PULSE separator in line with the VERTI-G dryer saved more than 66 m<sup>3</sup> [413 bbl] of OBM which otherwise would have been disposed of as waste along with the drill cuttings. This fluid recovery resulted in an estimated net savings of USD 36,910.
- Additional benefits to the operator included
  - 40% reduction in the mud losses at surface
  - 17% reduction in waste volume for disposal
  - significant improvement in the dryness of the drill cuttings for disposal.

[miswaco.com](http://miswaco.com)