



# OPERATOR IN THE DJ BASIN IMPROVES PRODUCTION OPTIMIZATION WITH ROXAR 2600 MULTIPHASE FLOW METER

## Customer

A prominent international operator

## Application

Unconventional oil well production

## Challenge

The world's energy demands are greater than ever before. When producing from unconventional oil wells in the DJ basin, it is challenging to find the balance between increased production rates and protecting the lifetime of the well. The goal is to ensure production rates are optimized while also ensuring the frac sand remains in place.

## Solution

Ensuring each well is flowing optimally at all times, while ensuring sand is not being pulled out of the fractures, requires data. With the use of multiphase flow meters, the operator is able to achieve this goal.

Roxar 2600 Multiphase Flow Meters (MPFM) are installed single well, at the well pad locations when wells start initial production. The real-time oil, water and gas rates provided by the Roxar 2600 MPFM are converted back to reservoir conditions using the PVT data for each specific well. From there the total viscous rate (TVR) is calculated at reservoir conditions. A target TVR has been defined by the operator, where it has been established that production rates are at their optimum, without pulling too much sand. Choke settings are then managed for each well, in order to maintain the TVR as close to the optimum level without exceeding it.

## Results

- MPFM data used to calculate the total viscous rate (TVR) at reservoir conditions
- Choke settings changed based on MPFM data to optimize production
- Maximizing flow rates while ensuring sand production is limited, protecting the well's lifetime



*Image 1. Roxar 2600 Multiphase Flow Meters in use at field location*

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The critical period identified for these calculations is up to the first 6 months of a well's lifetime. Due to the natural decline of shale well production rates, after this time, the choke can be fully open without the target TVR being exceeded. This data is therefore monitored for the earlier period of each new well's lifetime.

The result of this approach is each well has production optimized in a very intentional way. With the frac sand remaining in place ensuring the fractures remain open, the lifetime of the well is assured, with maximum production achieved over time from each drilling effort.

## Resources

Multiphase Flow Measurement  
[Emerson.com/RoxarMultiphaseFlowMeasurement](https://emerson.com/RoxarMultiphaseFlowMeasurement)

Roxar 2600 Multiphase Flow Meter  
[Emerson.com/Roxar2600MPFM](https://emerson.com/Roxar2600MPFM)



*Image 2. Insulated Roxar 2600 MPFMs installed at a well pad in the DJ basin*

For more information, visit  
[Emerson.com/Roxar](https://emerson.com/Roxar)

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