

Express EPF models new facility while producing 3.36 Bcf of gas in Argentina

During four months of operation, an express early production facility (EPF) recovered 11 metric tons of solids and produced 3.36 Bcf of gas while a permanent facility was being built. The solution gave the operator early cash flow and helped prototype the new facility.

The objective

A major operator in Argentina's Vaca Muerta Basin needed to prepare three high-temperature wells for production at the end of a high-density hydraulic fracturing operation. The operator's goal was to clean up the large amount of sand being produced from the wells while measuring flow rates to confirm the reservoir potential.

Assuming a positive outcome, a dedicated production facility would be built to permanently process the well effluent. However, the operator also had an opportunity to achieve cash flow and jumpstart production with a temporary solution while waiting for a permanent production facility to be built. The operator worked with SLB to keep the wells flowing during the entire course of construction.

The solution

For timely response to this type of oilfield challenge, SLB relies on its Production ExPRESS® rapid production response solutions. This suite of services focuses on improving wellhead and surface facilities to help operators maximize production and improve cash flow through rapid diagnosis and intervention. In a fast-changing industry, Production ExPRESS solutions help operators keep wells flowing, especially in problematic or underperforming fields, with a service that is practical, modular, and highly responsive.

As part of the Production ExPRESS solutions portfolio, an express EPF was designed to handle high-temperature hydrocarbon fluids and sand production coming from the fractured wells. Express EPFs are rapidly deployed temporary solutions that enable operators to start up production faster than conventional EPFs and can be deployed while a dedicated facility is being built for early cash flow.

The complex configuration required handling flowback from three wells simultaneously, which was achieved by designing a modular package with three trains of equipment. Besides the sand management system, the main components were the versatile separators that prepared the wet gas to be produced directly into the pipeline, while the liquids were stored in tanks and trucked to the remote facility.

The results

The express EPF was one of the first used in the Vaca Muerta Basin to provide early production from fractured wells with high wellhead temperature. During four months of operation, the express EPF succeeded in recovering 11 metric tons of solids and produced 3.36 Bcf of gas with limited flaring while the permanent facility was being built. The well test data acquired during the project also provided essential prototyping for the production facility design. Noting the high volume of solids being produced, the operator included a sand management system in the design of the facility to protect it from potential damage.

Being able to supply three sets of equipment showcased the versatility of the services offered, fully meeting the operator's goals for early production access. The deployed solution brought extraordinary value, enabling the operator to prove the wells' economic viability and obtain critical data for future facility design and decision making.



One of three trains of express EPF components deployed at the wellsite, including separators and piping.



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