

Birch Permian Saves Time and Money Utilizing Enersight for Efficient Evergreen Planning



The Company

Birch Permian is a privately held E&P company that focuses on the development and operation of oil and gas properties in the Permian Basin.

The Challenge

Birch Permian was facing a challenging set of water management issues within their Midland Basin Asset, requiring them to add additional configuration into their Enersight model to provide a streamlined and more detailed water analysis – allowing them to continue to test development assumptions in context and efficiently plan.

Beyond managing the water supply needs of frequently changing frac schedules and subsequent receipt of

flowback volumes from neighboring wells, new factors exacerbating the issue include:

- ⬡ Connection of new assets into the main water system
- ⬡ Uncertain forward-looking capacity limitations on saltwater disposal (SWD) capacity due to emergent Seismic Response Area restrictions from local regulators
- ⬡ Sourcing and management of multiple contracts with 3rd party SWD companies

With these concerns, additional configuration details were required that could then help quickly model the water constraints and costs across all their development cases and sensitivities.





The Solution

Birch's team enhanced their existing life of field development model to automatically include their frac water usage requirements, flowback modelling of nearby wells and allow optional third-party disposal contracts to be leveraged on an as-needed basis, prioritized by lowest cost via Enersight's network modelling capabilities.

Previously, they would take water volume data out of Enersight into Excel to look at their frac water requirements and manually compare the remainder against the available contracts. However, they were able to integrate that contract information directly in Enersight to enable the automatic generation of costs associated with these operations.

The outcome for Birch was that this new model can allocate water to recycling first, before sending all remaining water to the proper disposal facilities based on available capacity.

Benefits

This new integrated modelling approach in Enersight helps Birch quantify how much they are spending

on water, correctly identifying opportunities where they can save money by recycling water and where they may need to send it down pipe to an SWD. It has also helped them with improved evergreen visibility into their general operating expenses for different scenarios.

Previously, this approach of using Excel as a post processing evaluation tool for contracted rates was working, but the team would then have to "roll it into the model" which takes more time and was not as accurate. Enersight enables them to keep everything in one place, providing management with rapid visibility and clarity.

enersight

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