Upstream Oil and Gas Company Finds Unconventional Value in Spotfire
Clean data, time-saving workflows, best practices, better answers

**CHALLENGE**

“Our goals include being the most efficient and prudent operator among all oil and gas companies, especially for unconventional resources, and to do that, we have to concentrate on efficiency in cost, execution, and data,” says this reservoir engineer. “The industry is now in a down cycle. In an up cycle, you might drill 20 wells and see which ones are best, but today, if you drill two wells, they have to both be good. We have to make better decisions. Most companies use standard industry analytics software that’s typically very expensive, complicated, and supplies only a few analytic capabilities.

“When you grow through acquisition, often the forethought is not there to integrate and harmonize systems and clean data. We found ourselves with a lot of old processes, and they’re all very breakable, easy to corrupt, and labor intensive. "

“Upstream oil and gas, financial, distribution, and safety—there’s such a wide variety of internal users that needed ways to leverage information. We needed to be able to build workflows that could adjust to the end user’s role. We needed to streamline our data and get it into usable, clean formats that end users could use with minimal support from IT.”

**SOLUTION**

“We started using TIBCO Spotfire® at least five years ago to review financial data. It was an open enough platform that we thought it merited looking at ways to fully leverage it, including the TIBCO® Enterprise Runtime for R (TERR) engine. It’s helped us bring disparate data sources together for more robust analyses, and in many cases, we do that more cost efficiently than the industry software.”

**DETAIL**

“Now every group has the opportunity to use the best workflows, and by doing that, we’ve shared learnings, conducted better offset operator analysis, identified which wells are suffering and need more attention, which need more expenditure. We better utilize our resources based on these key metrics.”

— Reservoir Engineer

| 44% |
|——|
| Year-on-year savings due to cleaning data with Spotfire |
AN UPSTREAM OIL AND GAS COMPANY

This upstream oil and gas company is a leading natural gas and oil producer with expertise in developing tight gas, shale gas, coal bed methane, and unconventional oil resources.

BENEFITS

CLEAN, COST-SAVING DATA

“Using out-of-the-box Spotfire visualizations, we quickly flag what appears to be bad information. We have so much data from different places and times. It could be called ‘apples,’ ‘apples!’ or ‘APPLES,’ and cleaning it just makes it so much easier to review and link to from different systems. Clean, concise data lets us spend more time making better decisions.

“One of our most successful Spotfire use cases was reviewing costs for chemicals associated with producing wells, and in one division, we saved nearly 44% year-over-year, on the order of tens of millions of dollars. The data had been provided before, but it wasn’t in a clean, normalized format. We spend tens of millions of dollars for data. We can now vet the information and provide feedback to the data aggregator to ensure its quality.”

FOCUSED WORKFLOWS AND BEST PRACTICES

“Because Spotfire is so open and capable, end users can feel overwhelmed trying to leverage all its capabilities. Our goal for the Spotfire library was to deliver role- and cross-role solutions. We’ve focused on making small workflows easy to consume and interact with. We used some TIBCO service hours to implement sophisticated Python scripts that help us dynamically manipulate reports, and the same for TERR. We’ve automated very sophisticated analyses that give users very powerful tools.

“We’ve taken best practices and implemented them across many groups and functions into singular workflows that now connect to large data sets rather than to local Excel data. Now every group has the opportunity to use the best workflows, and by doing that, we’ve shared learnings and better offset operator analysis, identified which wells are suffering and need more attention, which need more expenditure. We better utilize our resources based on these key metrics.”

FASTER, EASIER PROCESSES AND BETTER ANSWERS

“Before, with old processes, it wasn’t uncommon for a result to be delivered in Excel, PowerPoint, or email. Then if a question came up requiring redoing the analysis, it was very time intensive. With Spotfire, we do similar tasks, but dynamically change the results. If questions come up, with very simple Spotfire functions, we can get results quickly and give them to everyone on the platform.

“One of our most important processes is determining reserves every year, and it’s gone through a major transformation, from people delivering binders across the company, to now being fully digital. Spotfire runs an analysis and gives us results on 30 to 40 wells a second. Before, people did one well a minute. We now maximize our time and better refine our answers.”

FUTURE

“We believe using Spotfire will help us achieve our goal, to be the most efficient, prudent operator in unconventional oil and gas, and we are investing in TIBCO and TIBCO partners to maximize our capabilities.”

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