CUSTOMER USE CASE

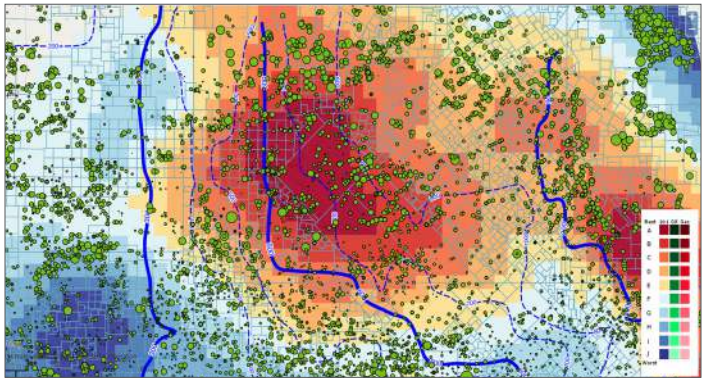
Finding Optimal Well Spacing with DI Transform

How Drillinginfo Helped a large E&P company Visualize Microseismic Events in 3D and Analyze Multidisciplinary Data in a Single Source

CUSTOMER CHALLENGE

As one of the largest E&P companies in the oil and gas industry, Company X relies heavily on data and technology to maintain and expand its competitive position in the market. The company's upstream segment plans and drills hundreds of wells per year based on careful analyses of many datasets. One key component of the drilling process is identifying best practices in completion optimization.

In a recent unconventional field study, the geology team at



Microseismic and hydraulic fracture visualization from DI Transform (Image Source: SEG Publications, URTeC 2013).

Company X sought to determine both the optimal wellbore spacing and the impact that a clay-rich layer, acting as a fracture barrier, would have on the well completion methods. To identify the best completion parameters, the team needed to understand the relationships between multidisciplinary datasets—in particular, the correlation between microseismic data and the hydraulic fracture behavior of a potential well.

Because there was no single platform that could seamlessly integrate geological, geophysical, and engineering data, the team was forced to use multiple standalone applications. The requirements of transferring data between these applications became a tedious and time-consuming process. Additionally, none of the standalone platforms were sufficiently powerful to visualize microseismic data in an integrated 3D environment, which was critical in deriving accurate conclusions.

CUSTOMER SOLUTION WITH DRILLINGINFO

When a geologist at Company X was introduced to Drillinginfo and DI Transform, she immediately recognized the value the software would bring to the project. Unlike prior applications her team had utilized, DI Transform provided a differentiating solution: a single, integrated environment for quantitative 3D microseismic visualization. Because the project's goals relied heavily on accurate microseismic data analysis, this solution had a major impact on its success. "DI Transform is unique among industry software offerings" says the geologist".

Drillinginfo also helped Company X mitigate the need to manage multiple software applications. With its multivariate analytics engine, DI Transform allowed the team to analyze and correlate microseismic events with geological and geophysical data types, such as well logs and seismic data, in a single interpretive environment. This advantage saved countless hours of data transference between standard G&G platforms.

> *"Through the integrated correlation of microseismic data with engineering and completion parameters, DI Transform has helped us achieve direct and meaningful solutions to the problems we are attempting to solve."*

The DI Transform integrated workflows for 3D microseismic visualization and analysis helped Company X effectively optimize key engineering parameters related to well spacing and completion. The unique multidisciplinary approach by DI Transform has allowed Company X to facilitate its project goals with increased value and efficiency.

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