



STRATA-Vision saved operator \$1.2 million USD



Statoil was planning to drill a North Sea injector well to increase production from surrounding wells. It's critical to ensure proper placement of the injector well to sustain production rates as placing it in the wrong location can lead to a costly investment with no return.

For the pre-well study, Statoil had only conducted X-ray fluorescence (XRF) testing in a total of four samples from an offset well. Although four samples were collected in sandstone formations, they represented two different formations.

The limited data Statoil had collected was not sufficient to confidently differentiate between the formations, and Statoil was concerned that it would be impossible to select the proper placement for the injector well without gathering more downhole data. This would require a sidetrack with additional tool runs, significantly increasing costs.

Statoil asked Baker Hughes, a GE company (BHGE), to help find a solution on proper placement for the water injection well. BHGE leveraged data from its **STRATA-Vision™ advanced cuttings analysis service**, which had already been applied in another nearby well.

The data provided BHGE with more insight into the elemental composition of the sandstone formation.

Using the STRATA-Vision service, Statoil's cuttings were analyzed and the elements Ti, Zr, and Sr were identified as key markers for differentiation between the sandstone formations. Combined with resistivity imaging data from an offset well, BHGE also identified the formation top as well as the presence of cross-bedding on one of the formations, when compared to the other formation, which was structureless.

BHGE had also run the **StarTrak™ high-definition imaging service** in one of the nearby wells and this data was also used to lower any remaining uncertainty. These images clearly showed the presence of cross-bedding in one formation compared to a structureless appearance of the other formation.

By using the STRATA-Vision service combined with the StarTrak service, Statoil was able to position the injector well in the optimal location to boost production from its other wells.

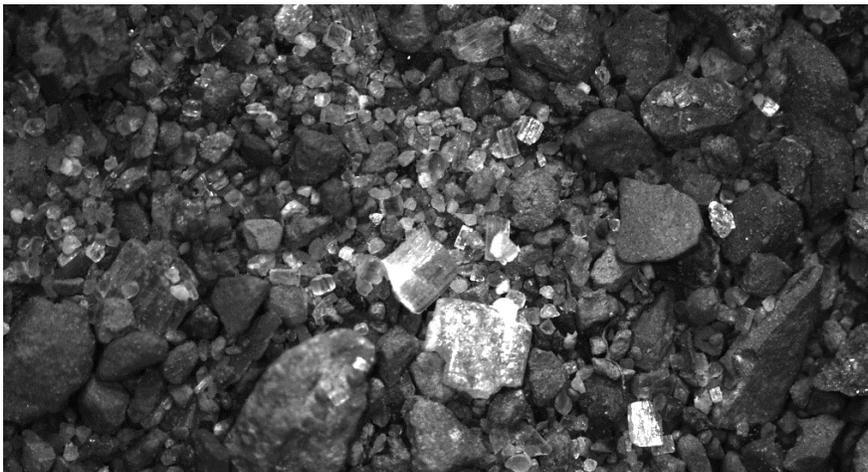
Challenges

- Differentiate between similar sandstone formations without gathering more data
- Avoid sidetracks or additional trips
- Enable proper placement of injector well

Results

- Properly positioned the customer's injector well
- Saved Statoil up to \$1.2 million USD by eliminating the need for a sidetrack and extra tool runs
- Identified formation using Statoil's existing data

Although there were initial concerns there was not enough data to position the injector well without sidetracking, Statoil was able to utilize the STRATA-Vision service to analyze available cuttings and provide a solution without the cost of additional data-collection runs. As a result, STRATA-Vision saved Statoil \$1.2 million USD.



Using the STRATA-Vision service, BHGE analyzed Statoil's cuttings and identified the proper location for the injector well.

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