

Veolia Absolute.Z* used in fine filtration of produced water from oil fields

CASE STUDY | Hydrocarbon Processing

| Challenge

ESG Filtration Ltd, based in Calgary, Alberta, is a Veolia partner that works with oil companies around the world who need to protect the porosity of the formation when re-injecting produced water for conventional and enhanced oil recovery. The geological structure that contains the oil and water can become easily blocked. To clean out the blockage, expensive cleaning is required, which leads to lengthy downtime.

Companies are looking for solutions to filter out these contaminants to reduce the cost of cleaning and production downtime.

| Solution

Veolia's Absolute.Za depth cartridge filter uses patented Z.Plex* technology (Figure 1). The filter composition incorporates small diameter fibers and an innovative 3-dimensional fiber matrix. There are a number of micron ratings available depending on the water source and the fouling potential of the filter. The filter has been engineered to have optimized performance for absolute filtration and has superior particle holding capacity, which would help address some of the challenges faced by oil companies.

Veolia teamed with our Veolia channel partner, ESG Filtration Ltd, to better understand the contaminant challenge. Once a better grasp of the challenge was gained, then the appropriate Veolia cartridge could be selected to solve the problem.

After the evaluation was completed, it was determined that the Absolute.Z 01 micron filter was the best product for the situation.

| Results

Once the Absolute.Z filter was installed, a number of improvements occurred:

- There was a decrease in the number of expensive formation work-overs including blasting, chemical injection, acidification, and water injection (fracturing)
- Greater oil field productivity was observed

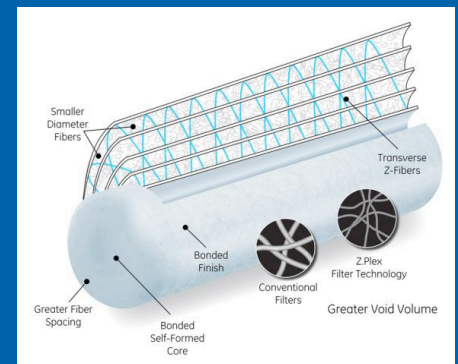


Figure 1: Patented Z.Plex Filter Technology
Patent Numbers: 6,916,395, 6,938,781, 6,986,427

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