| CASE HISTORY |

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VALUES DRIVEN™

AcroClear™ Mitigates SWD Filter Issues

Black FeS Dissolved and Savings of $58,100 / year Projected

BACKGROUND

Multi-Chem tested the water and determined that the problem was Iron Sulfide Solids (FeS). The problem was stemming from production water tanks that were allowing the FeS to accumulate and further contaminate the water. Initially, a recommendation of three products was proposed to mitigate the problem. The cost of the proposed program was approximately $89,000.

ISSUES

The Customer's Salt Water Disposal Well (SWD) required filtering prior to water injection to enhance water quality and prevent the injection of solids into the disposal well. The filtering process did help remove solids, but also posed a safety risk. Due to the poor water quality and high volume of solids transmitted through the well, the water filters had to be changed up to two times per day. The field had a known Hydrogen Sulfide (H2S) problem and every time the filters were changed there was a chance of an H2S exposure. There is also the associated cost of frequent filter changers and the required man hours to perform the task.

ANALYSIS

Millipore filtration and frequency of the SWD filter changes were used as a KPI to whether or not the proposed program was successful. The results that followed showed few changes in water chemistry or frequency of filter changes. A new approach was necessary to successfully solve the problem at hand.

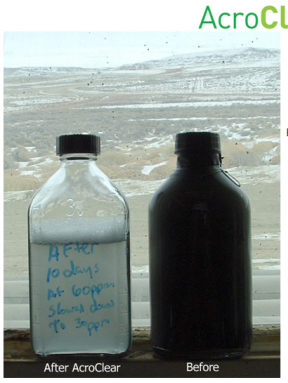
RESOLUTION

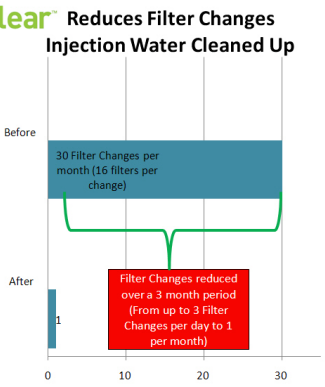
After careful review of the water chemistry and the problems associated with such, the decision was made to employ the product AcroClear in lieu of the three previous products. AcroClear was chosen due to the products incredibly fast reaction times H2S and FeS at low treatment concentrations.

DELIVERED VALUE

Prior to the implementation of AcroClear as an H2S Scavenger and FeS dissolver, SWD filter changes were being performed at least daily, a minimum of 16 filters / day. Each filter cost approximately $3. By changing to monthly filter changes with AcroClear, savings of a minimum of $16,934 / year not including labor and hazardous waste disposal costs. To date, the filters have not been changed in 26 days. As time goes on, filter changes will become less frequent as the system is cleaned of FeS.

The prior treatment program cost $89,000/year. AcroClear has been used to treat the system @ $31,000/year. Total cost savings of $58,000/year is expected. There is also the intangible cost associated with safety risks each time the SWD filters were changed that has been reduced to once per month from 30 times per month.





Global Technology Center
World Houston International Business Center
15865 International Plaza Drive, Suite 200
Houston, Texas 77032 USA

(800) 805 9178
(325) 223 6200
(325) 942 7500 FAX

www.multichem.com