

## MC M-8041 Improves H<sub>2</sub>S Scavenging

System Efficiency Increases; 34% Increase in Sulfur Removal

### BACKGROUND

This Multi-Chem client was still a competitor's H<sub>2</sub>S scavenger in their sparged towers. Gas flow approximated 750 MCF with H<sub>2</sub>S values averaging 1100 ppm. There are two 6'x20' sparged vessels in series designated as primary and polisher. The primary vessel was only achieving a 21 day run time prior to change out. The reaction efficiency equated to 0.093 gallons of product per ppm H<sub>2</sub>S per MMSCF/D.

### ISSUES

This producer was not satisfied with the frequency of change outs, costs and the labor involved due to crystallization formation with the spent H<sub>2</sub>S scavenger in their sparge towers.

### ANALYSIS

Multi-Chem conducted a study to find an H<sub>2</sub>S Scavenger that would reduce LOE. The initial phase of evaluations attempted to replicate the solids formation from the competitor's spent chemistry. Multi-Chem installed a 2"x16" clear column w/ a sparger assembly along with a 3.0 SCF/M Dwyer Rotometer and ran a slip stream from influent gas to apparatus. The exact chemical/water ratios were utilized to duplicate actual vessel fluid conditions/dynamics. Gas was flowed thru the apparatus at 0.3 SCF/M. Multi-Chem was not able to duplicate the crystal formation.

The 2nd phase of testing involved developing a more cost-effect product. Multi-Chem selected M-8041, which was more that twice as effective as the other vendor's product.

### RESOLUTION

Multi-Chem selected MC M-8041 Liquid Scavenger as a replacement for the treatment. The reaction efficiencies calculated with the M-8041 was 0.065 gallons of product per ppm H<sub>2</sub>S per MMSCF/D.

### DELIVERED VALUE

The results:

- 30% increase in run-time,
- 25% reduction in costs
- 34% increase in sulfur removed

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