



CASE HISTORY

AID-26 SWD Injection Aid

Pressure Reduced/ Injection Volumes Maxed

The Customer

Large independent operator with a salt water disposal in the Mid-Continent Region of the United States.

The Challenge

- Monthly well acidization to maintain profitable water injection rates
- 4- 5-Micron sock filters changed 4-6 times per day
- 2-3 feet of tank bottom accumulation shortly after cleaning/acid job
- 2-3in solids “crust” formed on top of water held in tanks weeks after clean/acid job

The operator’s maximum permitted injection rate was 16,000bbbls of water per day. Set up with 2 gun barrels and 6 water tanks, operators struggled to maintain a profitable injection rate. Large volume monthly acid applications were implemented, which rapidly diminished days after their application. Injection rates would typically fall by 5,000bbbls per day between acid jobs, while maxing out injection pressures. With inconsistent injection rates, the SWD struggled to maintain profitability.

The Analysis

Membrane filter testing indicated large volumes of oil carryover, iron sulfide with some constituents of calcium carbonate and calcium sulfate. Gas breakout testing on the injection water indicated +2,000ppm of H₂S dissolved in the water. SGB screened a suite of iron, solids and H₂S control products. Based on that testing and the historical success of AID-26 for iron sulfide control, it was selected and implemented.

The SGB Solution

AID-26 was applied via continuous injection at 50ppm (based on water injection volumes) upstream of both gun barrels. 5 gallons of AID-26 was batch fed into each water tank, to accelerate the saturation process and solids removal.

The Success

Within 72hrs, the inlet water was clear and iron sulfide free. Within 30 days, without additional intervention, the tank crust and sludge bottoms were gone from the water tanks. Over the course of the initial 30 days, filter changes gradually reduced until filter run line was over 90 days. Data indicated and operators believed that AID-26 was controlling the solids so effectively, that the filter system was bypassed and later removed.

Immediately prior to AID-26’s installation, the injection pressure was the maximum permitted limit with the injection volume of 13,300 bbbls per day. Utilizing AID-26, the injection pressure was reduced by 20% while maintaining the maximum injection volume of 16,000bbbls per day.