

RETROFITTING OLD TECHNOLOGY TO SMART PUMPING

Application Sheet #43

REAL TIME BENEFIT

Optimized chemical injection program and manage by exception.

SITUATION

- A Permian basin customer had many solenoid-driven diaphragm pumps in their field. They could not achieve the desired injection rates preventing them from optimizing their chemical program. They also wanted to automate, allowing them to further optimize and manage by exception. The existing pumps were mechanically adjustable and not suitable for this purpose.
- The wells were low producers and the customer felt they could not justify replacing the pumps with modern technology.

SOLUTION

- As a trial, Sirius™ retrofitted the existing pump with a Fusion™ controller, InSight™ smart sight glass and Connect IIoT technology allowing it to operate like a smart pump. The InSight provided flow verification, feedback control of injection flow rate, and tank level. The Connect provided remote monitoring and control using a web platform.



RESULTS

- Over a 30-day trial the solenoid-driven pump with the Sirius Technology retrofit was 97% accurate on volume injected.
- The success of the retrofit in chemical savings, program optimization, and the ability to manage remotely convinced the customer of the value, and to retrofit the entire field.

P1 Inj Rate Measured Q/day



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