Gas Lift Optimization Application Increases Crude Production by 40%

RESULTS

- Operator increased crude oil production by 40%
- Operator reduced gas injection by 50%
- Return on Investment projects greater than 300%
- CAPEX payback within three days

APPLICATION

Gas lift for oil production

CUSTOMER

Major unconventional oil and gas producer in the West Texas Permian Basin

CHALLENGE

Gas lift is a common method of artificial lift for crude production. The optimization of the process to minimize lift costs versus production gains is always a concern to all operators. Due to the relatively low price received for produced natural gas relative to a much greater return for crude oil, a common approach is to inject as much gas as possible in order to obtain the most oil. "With 40% more crude and 50% less gas injection required, we were able to add personnel and minimize the effects associated with industry conditions."





SOLUTION

The operator installed FloBoss[™] 107 flow computers using the application for gas lift optimization with plunger assist – Well Optimization Manager. The Well Optimization algorithm automatically adjusted PID loop parameters to optimize the amount of gas injected versus crude produced. The total added investment was approximately \$45,000.00 per site to add the RTU and plunger equipment, along with a valve actuator for the injection choke. The resulting crude production increased by 40%, with a 50% reduction of injection gas required. Economic analysis indicated an average three-day payback period, and an overall project ROI greater than 300% in the first 60 days on a 22-well pilot project.

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