

Expro Excellence

Efficient Gas Lift Optimization evaluation through complete well surveillance

Well Intervention and Integrity



Objectives and background

- A customer in Asia was experiencing gas lift performance issues affecting their overall field production. To optimize lift, gas injection needs to be as deep as possible but maintain injection stability. Fluctuating injection pressure may be a symptom of a number of issues including; leaks in the tubing, operation through multiple gas-lift valves, oversized orifice valve, annular heading, insufficient lift gas, or changing reservoir pressure and flow conditions
- The customer selected Expro's DFOS service to carry out a DTS (Distributed Temperature Sensing) and DAS (Distributed Acoustic Sensing) survey of the well. This was achieved through a slickline deployment to jointly evaluate the integrity of the well and monitor the gas lift performance during production

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- The overall scope involved the acquisition of DAS-DTS data to accomplish two main objectives: Identify any tubing to casing leak points and to evaluate the Gas Lift system performance associated with well production
- Utilising Expro's DFOS system, allowed the customer to observe the Gas Lift System working in its entirety across all areas of the well simultaneously and with processed results within hours of acquisition

 Expro's DFOS equipment was able to be integrated with standard slickline equipment, which was already mobilised for other operations. This allowed a reduction in lifting and transportation operations

Value to the client

- The customer was able to maintain 2 days of production when compared with the associated shut-in times of other surveillance technologies on the market.
- A detailed evaluation of the Gas Lift system was able to identify intermittent activity across a number of mandrels which may have been missed by conventional logging tools
- DFOS data was able to identify surge and fallback events as the well flowed under poor Gas Lift conditions
- Data analysis was presented to the customer within 12 hrs by Expro's Analyst team
- Through utilisation of Expro's proprietary Qikview software, the Expro DAC analyst was able to pull in multiple datasets including but not limited to; DAS,DTS, Completion Items, Lithologies, Openhole data and point sensor memory temperature, pressure, CCL & GR





Contact

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