



EXPRO

WELL FLOW MANAGEMENT™

/ Expro Excellence Well Intervention

Expro's leading downhole camera inspection saves \$100k and two days of rig time



Objectives/background

- Expro had been working with a customer to support their well integrity programme including electronic caliper corrosion measurements
- Recent industry research reported that hydraulic fracturing often misses the zones of interest leaving hydrocarbons stranded
- The customer wanted to identify and measure the entrance hole size and position of perforations in a 5.5" production casing
- In the zones with smaller perf sizes, not enough frac sand was present, meaning hydrocarbons were stranded and had to be re-fraced
- To save time and cost, the customer wanted to avoid traditional electric line with tractor, Expro proposed running the WellCam memory camera on conventional coil tubing as the most cost effective solution

Expro Excellence

- WellCAM® is the only downhole camera in the industry with the ability to provide side viewing in memory mode enabling the customer to better understand the results of their perforating program allowing them to plan for better, more productive fracs on future jobs

- Using Expro's WellCAM® system the customer was able to identify oversized perforations which were formed in areas that received the frac sand. The flow through the perms caused erosion and increased perf size
- This capability, along with its advanced visualisation software, allowed measurements of the perforations' size down to 1mm
- This solution utilised standard coil tubing, significantly reducing the cost of traditional tractor or e-coil conveyancing

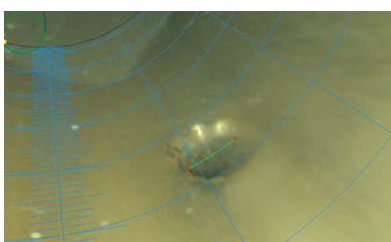
Value to client

- Expro saved the customer in excess of \$100K by using a standard coil tubing, alongside approximately two days of rig time
- Expro inspected more than 700 perms for the customer and the largest variations in perf sizes were: .5"X.9" .58"X.79" and .26"X.41"
- The camera provided enhanced data, allowing the customer to understand which zones received the initial frac treatment and where to focus their second frac. By measuring the perms they were able to identify which zones took the majority of the frac sand
- The customer was able to utilise the measure functionality in the visualisation software to measure and compare their perforation hole sizes

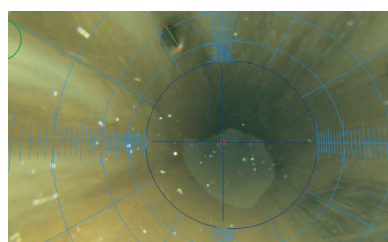
Cost saving



Reduction of rig time



The entrance hole for the gun system used is 0.5", however the measurement bow (left) indicates 0.51" and the right is 0.76"



Contact

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