

HISTORY

An aging oil producing field in Northeastern British Columbia. Wells are completed in the Halfway sandstone formation. Pump jacks are used on all wells to lift fluids. Average production from wells is 1-3 m³ fluid at 20% BS&W and less than 1e3m³/day gas. Wells are 30 to 40 years old and formation pressures have long been depleted. There is little pressure support in the formation

PROBLEM

Wells have a long history of issues with paraffin. Paraffin accumulates in the production string and wells are batched with solvent regularly. Wells are also hot-oiled when paraffin accumulations are severe. Producer suspects' formation damage caused by repeated hot oiling and well servicing has compromised inflow to the wellbore. Paraffin suspected to be main cause of damage.

SOLUTION

Stimulate worked with customer to identify top candidate wells for stimulation. Key elements to the discovery of stimulation candidates included:

- Production history
- Intervention history
- Formation characteristics
- Paraffin analysis and performance testing with stimulation solvents

RESULTS

Four wells were identified as top candidates for stimulation. Programs were designed to target a radial penetration of 2 meters which targets the perforation face and fracture face. D-Par XL was squeezed into the formation via casing annulus injection. Clean produced oil was pumped on top of the solvent to displace the chemical into the formation. Casing annulus fluid levels were closely monitored so the right amount of hydrostatic pressure was achieved to effectively squeezed into the formation. Stimulate provided all service to complete job from start to finish. Results from the 4 wells are below:

Solvent Stimulation Summary Sheet

Total Stimulations	4
Highest Return Well (\$/mth)	\$28,208.00
Lowest Return Well (\$/mth)	\$11,081.00
Total Stimulation Cost	\$51,746.00
Average Days to Payback	21
Prorated Yearly Payout	\$890,090.55

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