PureChem™ Services

TRUE SUCCESSES

WELLHEAD AND FLOW LINE PRESSURE DROPS IMPROVE OPERATIONAL PERFORMANCE

Challenge

The client was experiencing increased flow line pressure and paraffin build ups as well as emulsion concerns in a field with flow line booster pumps. Solids and hydrocarbons were found to be suspended in the water, and paraffin build up was found in the emulsion flow lines. Emulsions were being caused by the field booster pumps.

Solution

Paraffin samples from the emulsion pipeline were tested. Field header pressure monitoring was observed before/after the booster pump to determine a baseline. PC-4004 performed the best in paraffin and emulsion testing and was implemented on six wells at a treat rate of 200 ppm.

Benefit

The wellhead pressure was reduced from 2,070 kPa to 1,725 kPa, which is the lowest historical recorded pressure in this field. The pressure drop was significant enough to cause the field to unload enough fluid to flood the facility with production, resulting in a production increase. The production increase has since dropped off to normal volumes, however the pressures are holding at the lower rate resulting in decreased power consumption. In addition, there is reduced mechanical wear on the pumps and also saves on wellhead packing (environmental success). The pump pressure trend has also flattened due to less slugging in the line from a more consistent flow of fluid.

Field Booster Pump Detail:
Suction Pressure Before/After Program: 548 kPa/210 kPa
Discharge Pressure Before/After Program Implementation: 1,550 kPa/1,150 kPa

Area
Southwest Manitoba

Formation
Lodgepole

Form of Lift
Rod Lift with Flow Line Booster Pump

PureChem Product
PC-4004