Synchro-Smart™ Rodless PCP Restarts Production in Inactive Well

OPEX reduction brings well to profitability

BENEFITS

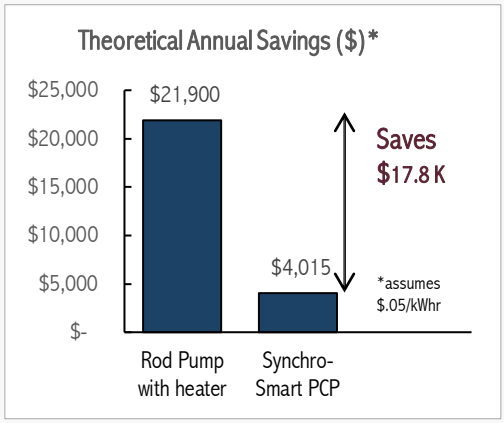
- 90 BOPD from formerly inactive well
- 80% reduction in power consumption
- Low-profile aesthetics
- Environmentally friendly with low acoustic noise

WELL BACKGROUND AND CHALLENGES

- Heavy oil in conventional well
- Formerly utilized rod pumping with Electric heating to reduce viscosity
- 1200 kWhr/day power consumption
- Well inactive for two years

RESULTS WITH SYNCHRO-SMART™ RODLESS PCP

- Daily electricity consumption reduced from 1200 kWh/day to 220 kWh/day
- Daily output increased to 90 BOPD
- Achieved 600+ days runtime



Synchro-Smart Rodless PCP systems operating adjacent to disabled pump jack in Dagang Oil-field, Hebei Province, China

Dagang field is located in Northern China, where in May 2017, Megmeet installed the Synchro-Smart™ Rodless PCP system.

This was an inactive well that was initially installed with a rod pump that consumed 1200 kWhr per day. The well went inactive in 2015 due unfavorable economic feasibility due to high operational and maintenance costs in relation to well output.

The Synchro-Smart™ system returned this well to profitability by producing 90 BOPD, with one fifth of the former energy costs. Several other wells in this field have been re-activated using the Synchro-Smart™ system.

The Synchro-Smart™ system was able to provide a higher efficiency due to the permanent magnet motor technology and the variable speed drive system, which optimally controls the pumping system. The 9kW permanent magnet motor was sufficient to maintain the output at 90 BOPD and operates at a fifth of the energy usage. The progressive cavity pump enabled cold heavy oil production avoiding the cost for heating to reduce the fluid viscosity. Using only 220 kWhr per day, the Synchro-Smart™ system has saved energy costs by 80%.

The system has been operating for 600+ days with no maintenance required.

The Synchro-Smart™ Rodless PCP system is made up of eight components: the downhole sensor, submersible permanent magnet motor, seal section, flex-shaft assembly, pump, submersible cable, the Synchro-Smart™ Control and Communications Cabinet, and remote monitoring. The permanent magnet motor enables higher efficiency than induction motors, eliminates the gear reducer as a point of failure, and provides constant torque for smooth start up.