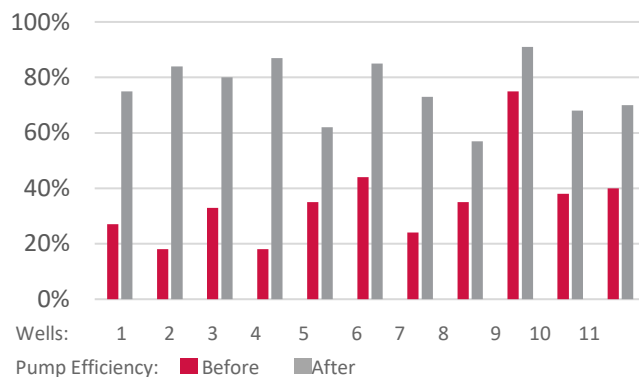


TOPS® Top-Intake Packerless Downhole Separator

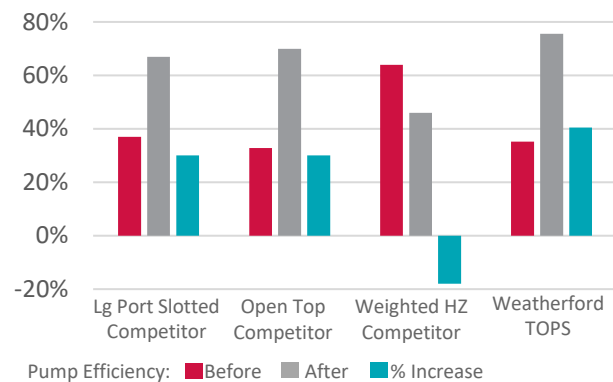
Drives 30% PCP Production Gains and ~40% Increased Pump Efficiency, Extending Runlife and Cutting Workovers

40% Average Efficiency



TOPS boosted PCP pump efficiency 40% with ~206 days average run-time—outperforming competing separators.

10% Improved Performance Over Competitors



Objectives

- Address severe pump inefficiency caused by high entrained gas in a heavy-9-14 API oilfield.
- Improve artificial lift performance and reliability without increasing operating speed or intervention frequency.
- Evaluate TOPS separator performance against competing downhole separators via side-by-side, fieldwide comparison.

Our Approach

- Deployed TOPS across selected PCP (progressing cavity pump) wells alongside competing separator technologies.
- Optimized downhole gas separation to redirect free gas to the casing, reducing gas interference at the pump intake.
- Monitored pump efficiency, production rates, casing gas, and PCP runlife to quantify performance improvements.
- Adjusted operating speeds post-installation to maximize efficiency gains while reducing mechanical wear.

Value to Customer

- Increased average oil production by 30% per well while maintaining stable water production.
- Improved pump efficiency by ~40%, enabling PCP speed reduction from 350 to 150 rpm.
- Extended average PCP runlife from ~120 days to 205+ days, reducing workovers and operating costs.
- Outperformed competing separators in side-by-side comparisons with ~10% greater efficiency gains and more consistent runtime.

Specifications

LOCATION	WELL TYPE	PRODUCTS/SERVICES
Canada	PCP	TOPS Top-Intake Packerless Downhole Separator

