STANDING VALVE GAS PURGE

FIELD CASE STUDY White Rhino Consulting

Improved Pump Efficiency: Wolfcamp Formation

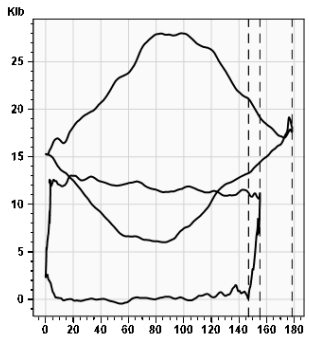
FORMATION	LIFT TYPE	PUMP INTAKE	SURVEY
Wolfcamp	**Rod pump (beam)**	**6,692 ft**	**Echometer · 01/2026**

The Challenge

A high-gas Wolfcamp producer (gas production ~1.2 MMCF) where free gas collects under the standing valve, compresses each stroke, and starves the pump, cutting fillage and risking gas lock.

The Solution

A **Standing Valve Gas Purge** was installed directly below the standing valve. Its one-way check valve vents the trapped gas to the wellbore each cycle, letting the barrel fill with liquid.



Actual Echometer dynamometer card: full, square, liquid-filled pump card.

Field Results

94.8% gas-free pump fillage

With Gas Purge — 94.8%

94.8% Volumetric efficiency	**536 BBL/D** Gas-free displacement
147.08″ Effective plunger stroke (of 155.19″ max)	**29 BBL/D** Gas-free slippage (tight pump)

Operating snapshot: 8.238 SPM · beam loading 65.6% · polished-rod load 6.0–28.0 Klb · 43.9 HP · tubing 250 psi / casing 100 psi · acoustic fluid level 4,183 ft.
Takeaway: On a well producing 1.2 MMCF of gas, the pump still achieved **near-complete liquid fillage (94.8%)** and 94.8% volumetric efficiency on a high-gas well.

All figures are from the Echometer survey dated 01/12/2026 (pump intake 6,692 ft).

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Email us to order or to set up a trial well.