Gas Well De-Watering Successes
With Gas Vent Pump™ Sucker Rod Pump

Benny J. Williams, Vice President Of Engineering, Harbison-Fischer
Colin Foust, Vice President / Operations Manager, NCX Oil and Gas Inc.
Why use a sucker rod pump to lift liquid off a gas well?

• Established technology
• Existing field support network
• Long-lasting surface equipment
• Many years of evolved sucker rod pump technology
• Cost effective
• The most often-used method
• Recent break-through technology for gas-laden fluids (Gas Vent Pump™)
Traveling valve must develop high pressure in the compression chamber on the downstroke to produce fluid (leads to gas locking)
Traditional Sucker Rod Pump Design
Traditional Sucker Rod Pump
Compression Chamber

Gas Locked Condition

BOOM!

Fluid
Gas Vent Pump™

- New, patent pending sucker rod pump design
- Top hold-down or tubing pump configuration
- Available in all materials for corrosion and abrasion
- Separates gas from produced fluid
- Separated gas is produced up the casing/tubing annulus
Gas Vent Pump™

Theory And Sequence Of Operation
Gas Vent Pump™ Installations

LeBro Unlimited Stroke Drive™ Pumping System

R&D Project (Patent Pending)

Designed for Gas Vent Pump™
Gas Vent Pump™

Applications

Colin Foust
Vice President / Operations Manager
NCX Oil and Gas Inc.
Gas Vent Pump™
Summary: 500 Successful Installations

Problems solved and advantages gained:

• Eliminated gas locking
• Separated gas from oil
• Eliminated tagging of the pump!
• Reduced sucker rod wear and breaks
• Pumps lasted longer before repair
• Increased gas and oil production in most wells
• Wells pumped down further (to pump inlet, zero inlet pressure)
Adams & Affiliates Oil Co.

400 Gas Vent Pump™ installations

- Red Cave formation
- 2,100’ depth
- 24” downhole stroke
- Cycle timers, 2 strokes / 3 minutes
- Oil and Gas production increased
- Stuffing box leaks reduced or eliminated
- Operating costs reduced
Mon-Corp Oil Co.

28 Gas Vent Pump™ installations
• Granite Wash formation
• 3,200’ to 3,600’ depth
• Oil and Gas production increased
• Stuffing box leaks reduced or eliminated
• Lifting costs reduced
• Plan to change all 150 wells to Gas Vent Pump™
• Most wells are open hole with formation sand entry which made previous pumps stick, causing premature pulling and destroyed pump parts
Gould Oil Co: 28 wells
Leejan Oil Co: 19 wells
Red Cave formation
- 2,100’ depth
- 24” downhole stroke
- Cycle timers, 2 strokes / 3 minutes
- Oil and Gas production increased
- Stuffing box leaks reduced or eliminated
- Reduced paraffin problems
- Operating costs reduced
Gas Vent Pump™ Installations

Conoco Phillips Oil Co.
- Red Cave formation
- 2,100’ depth
- Gas engine prime mover, 24 hr. operation
- 24” downhole stroke
- Oil and Gas production increased
- Stuffing box leaks eliminated
- Operating costs reduced
Questar Exploration and Production

- 6 Wells
- Penn Sand Formation
- 5,700’ depth
- Gas engines
- Fluid pound
- Gas Vent Pump™ Installed
- Fluid pound eliminated
- Stuffing box leaks eliminated
- Oil production increased about 10%
Questar Exploration and Production
  • Brown Dolomite Formation, Bivins 1-212
  • 4,200’ depth
  • Well previously shut down due to constant stuffing box leaks from gas slugging and 250’ fluid level stopping gas flow
  • Foaming agents tried but not cost effective
  • Gas Vent Pump™ Installed
  • Stuffing box leaks eliminated
  • Well pumped down to seating nipple
  • Gas production increased by 50%
  • Operating costs reduced significantly
Gas Vent Pump™

Questions?

Loads with zero inlet pressure
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