

## PLUNGER OPTIMIZATION SOFTWARE

### INCREASE PRODUCTION ON MARGINAL WELLS WITH SMART AUTOMATION

By efficiently unloading water and oil, at the lowest down hole pressure possible, Pure Automation is substantially increasing production on marginal wells.

#### Tired of Plunger Controls That Don't Work?

Most automation and control systems just aren't "smart enough" to be effective and efficient. Effective plunger control requires good software and hardware to be productive. Ours works and works well — let us give you a tour, and you can try it in your field on a trial basis.

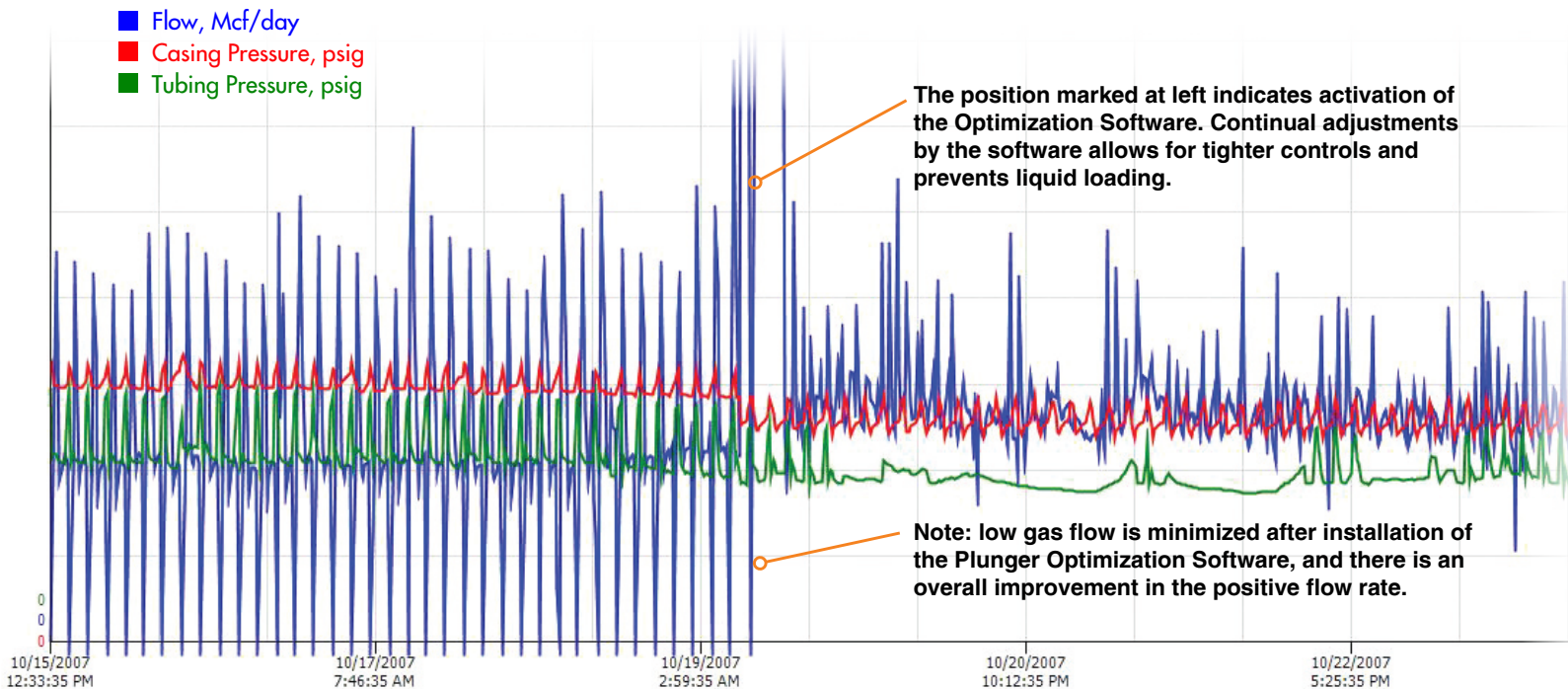
#### SMART PLUNGER CONTROL — Pure Automation's Software at Work

- Optimize well cycles based on liquid loading and uplift flows. The algorithm continually adjusts for changing line and downhole pressures to maintain optimal liquid loading and gas flows.
- Reduce the number of trips to well sites by having automation work for you.
- Operate your wells at a lower tubing and casing pressure to increase the life of the well.
- Efficient and cost-effective use of automation increases the number of wells per RTU, (Remote Terminal Unit) by combining plunger control and electronic flow measurement.
- Ideal for pad wells, with one controller managing up to 10 wells.



Call us to try it in your field on a trial basis  
505-327-3299

GRAPH NOTE: Actual data from producing well.



**TRADITIONAL BENEFITS of good plunger control on marginal wells**

- Increased well life
- Increased well production in water, gas and oil
- Lowest operating cost of all lift techniques
- Self-cleans paraffin from tubing

**THE ADDED BENEFITS of Pure Automation's Plunger Optimization Software**

- Run on a variety of platforms, with new platforms being developed regularly
- Control up to 10 wells; also installs in clusters to control an unlimited number of wells
- Increase the number of wells per RTU
- Reduced gas venting means less gas lost and less air pollution
- Decrease manpower for well maintenance by reducing the frequency of trips to well sites
- Flexible configurations allow for easy modifications to best match particular wells, and can be customized for your operating philosophy
- Trend data stored on the RTU is available through our configuration application, or remotely via Pure Automation's PureSCADA or other HMI/SCADA systems
- The software continually and automatically adjusts for changes in downhole pressures to maintain optimal liquid loading and gas flow

**CONFIGURATION AND OPERATION SCREEN HIGHLIGHTS**  
Report of the current cycle at right.

The screenshot shows a software interface with several sections. At the top right, a circular callout highlights the 'Last 12 Messages' section, which lists events such as 'Waiting For Arrival', 'Sales Valve Open Active', 'Lifting Plunger - Load Ratio', 'Lift Window Time Met', 'Offtime Ended Waiting Lift', and 'Offtime in Progress'. Below this, the main interface displays 'Plunger Statistics' for Well 4, with a circular callout highlighting a table of data for the last four plunger cycles. The table shows values for 'Last' and '2nd' cycles across four rows of metrics.

	Last	2nd	3rd	4th
Allowance Time	0.00	199.71	61.33	144.81
Off Time	1.00	1.00	1.00	1.00
Arrival Time	2.82	15.24	21.67	10.14
Volume	0.8	59.3	23.0	43.8
Average Run Rate	0.00	0.00	0.00	0.00

Statistics from the last four plunger cycles.

**Operator adjustable options are configured from a laptop remotely or on site and include:**

- Timed mode
- Smart intermitter
- Optimized plunger

**Customizable settings for particular wellsite conditions include:**

- Chemical Injection
- Tank level alarms
- Dehydrator alarms
- Other alarms and settings



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**Going Green – saving money and making it a little easier on the environment.** Pure Automation's technology allows our customers to substantially reduce natural gas venting and reduce vehicle traffic to and from well sites. You minimize gas emissions, save on travel costs, and emit less vehicle air pollutants.