FET | Multilift Solutions™

Case Study

Unlocking Production Potential by Eliminating Gas Interference Utilizing Rod Pump System in the Bakken

Pump Saver Plus™

WELL DETAILS

Tubing: 2⅞ in.

Pump Depth: 8932 ft.

Oil Gravity: 40 API

Water Cut: 63%

Gas: 150 mcf/d avg.

Pump: 1.5-in. Insert

Background

A well in North Dakota's Middle Bakken region was underperforming due to severe gas interference. Downhole cards from the Rod Pump-Off Controller (RPOC) revealed that gas slugs prevented the well from pumping off, significantly limiting production and operational efficiency.

Challenge

Despite multiple mitigation attempts, the operator was unable to achieve pump-off. The persistent gas interference resulted in a staggering 58% loss in potential production, highlighting the urgent need for a reliable and effective solution.

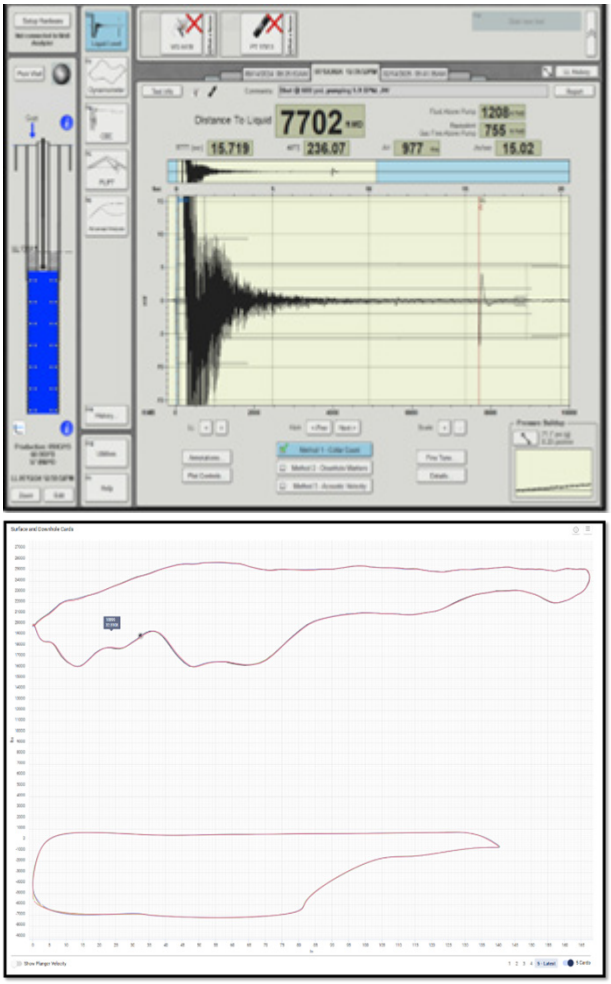
Solution

FET Multilift Solutions introduced the **Pump Saver Plus (PSP)** — an advanced tool engineered to separate gas and sand while maintaining minimal pressure drop. The PSP's innovative design restores pump efficiency using a rod pump system to enable consistent production.

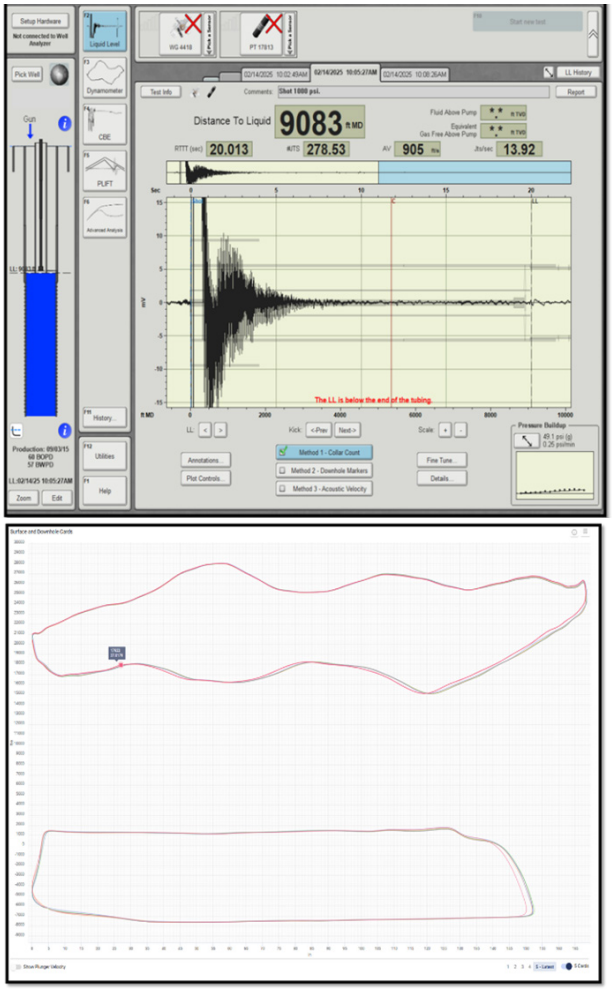
RESULTS: BEFORE vs. AFTER PUMP SAVER PLUS

Metric	Before PSP	After PSP
Production Flow Rate	30 bpd	73 bpd
Tubing Pressure	65 psi	80 psi
Water Production	18 bpd	36 bpd
Oil Production	12 bpd	37 bpd
Gas Production	127 mcf/d	150 mcf/d avg.

BEFORE Running PSP



AFTER Running PSP



PERFORMANCE INSIGHTS

- After installing the PSP, downhole cards showed a **63% full capacity** within a 24-hour cycle.
- **Heavy gas interference** was reduced to just **two occurrences**, a dramatic improvement.
- **92% of the time**, cards registered above **80% full**, indicating stable and efficient pump operation.
- **Fluid pound** was observed **30% of the time**, enabling confident pump-off and unlocking greater production potential.

CONCLUSION

The deployment of FET's Pump Saver Plus transformed the performance of this Bakken well. By effectively mitigating gas interference, the tool substantially increased oil production, improved tubing pressure, and enhanced operational control. This case study underscores the value of innovative downhole solutions in overcoming complex production challenges and maximizing well output.

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