

Expro Excellence

AutoBooST® technology increases production and reduces emissions through closed-loop gas recycling

Well Flow Management | Emissions Management



Objectives and background

- In a late-life oil field, reservoir pressures were declining across several onshore wells. Production performance deteriorated and several remote wells became uneconomic to operate without artificial lift
- Conventional gas lift required facility upgrades, pipeline infrastructure and external power sources, making them difficult to justify for isolated wells and satellite fields
- Operators are facing increasing pressure to improve operational efficiency while reducing environmental impact and make better use of produced hydrocarbons

A solution was needed that could:

- Restore and increase production from low-pressure wells
- Avoid major infrastructure investments
- Reduce reliance on external fuel and power sources
- Maximize utilization of produced gas that would otherwise have limited value at remote locations
- Reduce flaring and improve sustainability performance while maintaining operational flexibility

Expro Excellence

- Expro deployed the AutoBooST® autonomous gas lift technology from Innovative Production Services (IPS) to convert associated gas from a waste product into a valuable energy resource
- The system separates oil, water and gas directly at the wellsite before compressing and reinjecting the recovered gas back into the well for gas lift
- The same gas is also used to power the package, creating a self-sustaining production system that requires no external power supply
- Unlike conventional gas lift developments that often require extensive compression and distribution infrastructure, AutoBooST® creates a local circular-energy process
- This closed-loop approach enables operators to maximize the value of produced gas while minimizing waste and infrastructure requirements
- The portable, containerised system can be installed within days and provides continuous real-time monitoring, optimization and remote surveillance of production performance

Value to the client

- AutoBooST® successfully demonstrated that associated gas can be reused as both an energy source and an artificial lift medium while simultaneously increasing production performance

Improved production

- Oil production increases of between 50% and 150% were achieved across candidate wells
- Cumulative production gains exceeded 219,000 barrels during project operations
- Real-time optimization improved efficiency by matching gas injection rates to production requirements

Environmental and operational benefits

- Closed-loop gas capture and reuse maximized utilization of associated gas generated by the wells
- Minimized unnecessary flaring, gas handling and waste
- Self-powered operation eliminated the requirement for external power infrastructure
- Reduced the need to import fuel and lift gas
- Supported lower-footprint production strategies for remote and mature fields

Commercial gains

- Unlocked and fast tracked late-life production revenue
- Avoided major capital investments for permanent compression facilities and external energy sources



AutoBooST® enabled our customer to unlock additional oil production while improving resource efficiency and reducing emissions through the reuse of associated gas.

Rather than treating produced gas as a waste stream or requiring additional energy imports, the system converted the gas into a working fluid that simultaneously powered operations and enhanced well performance."

Lower carbon footprint



Enhanced production



Increased revenue

