

# Machine Monitoring Solutions: Oil and Gas Industry

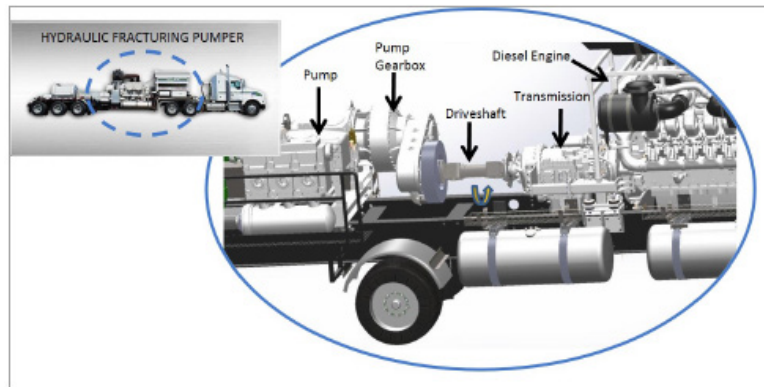
## MicroStrain SensorCloud Solution Brief

### Real-time health monitoring of high value assets

#### The Challenge:

Anticipating equipment failures in the oil and gas industry is crucial for managing bottom line operational expenses.

Existing methods for collecting and analyzing rig performance data are often inadequate for extracting business value and real-time actionable insights:



**Rigorous use conditions** - Oil and gas rigs operate in complex vibration environments. Characterizing and predicting failure of major components is key in reducing



**Live performance monitoring** - With SensorCloud monitoring, equipment performance can be tracked during operation for failure conditions. Data can be analyzed further for predictive modeling.



#### The Solution:

Use a wireless sensor network with SensorCloud to monitor equipment condition and anticipate failures.

**Connect:** Deploy the SensorCloud platform in conjunction with wireless torque, pressure, and temperature sensors to collect new rig performance metrics alongside existing process data. Leverage existing technical expertise to provide timely analysis of truck conditions.

**Monitor:** Keep distributed teams informed of equipment performance anomalies and trends that warrant replacement planning with real-time SMS and email alerts.

**Analyze:** Use SensorCloud's embedded MathEngine® analytics tool to unlock business value from historical performance logs. Determine which equipment vendors provided the best return on investment (ROI) and the lowest total cost of ownership. Optimize machine target set points to minimize costs and maximize life.

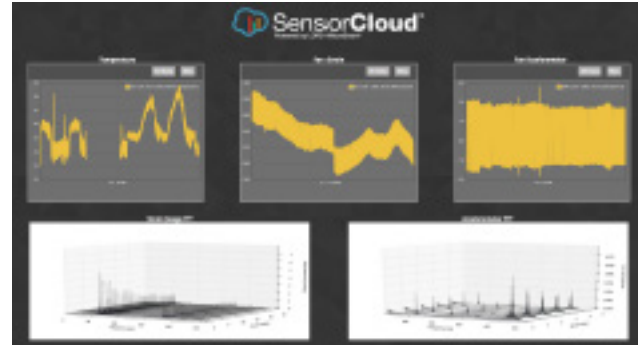
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## Machine Monitoring Benefits

- Reduce unplanned downtime and improve safety
- Make informed equipment purchases & maximize ROI
- Optimize machine performance and lifetime

## Features

- Scalable big-data visualization & real-time SMS and email alerting
- Ultra-reliable & secure data archival
- Flexible and programmable data analytics
- White-label branding, embeddable widgets & custom portals



## Real Time alerts and historical analysis

Using SensorCloud with its MathEngine analytics tool provides characterization metrics between machines and operating environments, throughout the equipment life cycle.



Connect, control and monitor MicroStrain sensors. Easy to use, intuitive graphic user interface.

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