



TECHENOMICS
INTERNATIONAL

12th September 2024
Press Release

Working with client to optimise IoT sensor trial at oil rig

Your Partner in Lubrication Reliability

Techenomics, 'Your Partner in Lubrication Reliability', is working closely with PT Bormindo to optimise an IoT sensor system being trialled on a mud pump at an oil rig in Duri Riau Sumatera, Indonesia, so that the client can enhance operations.

The sensor is capturing data on fine and coarse iron debris, operating temperature and, most importantly, oil condition with the information obtained at regular intervals.

Through Techenomics' Blue Oceans all-in-one cloud-based maintenance software package the data is being trended and PT Bormindo is provided with accurate analysis and interpretation.

The trial is in its early stages and Techenomics has worked with PT Bormindo to determine the appropriate data while continuing to work with the client on appropriate monitoring frequency rates.



CHRIS ADSETT
CEO OF TECHENOMICS



The Weatherford Mud Pump from a PT Bormindo oil drilling rig.

Through this optimisation process Techenomics has determined that the most valuable data is the Oil Condition Index that shows actual oil quality that ranges between 1 to 6 and that a data interval of 30 minutes to one hour is more than likely preferable.

Techenomics CEO Chris Adsett said: “Having a single-value parameter simplifies the assessment of the machinery oil’s health as the integration of oil condition sensors and IoT transforms how we monitor and manage equipment health.

“The trial will serve as an important process for PT Bormindo as the mud pump, which is a critical machine operating in a harsh environment, had never been subject to good maintenance practice such as regular oil sampling and analysis.

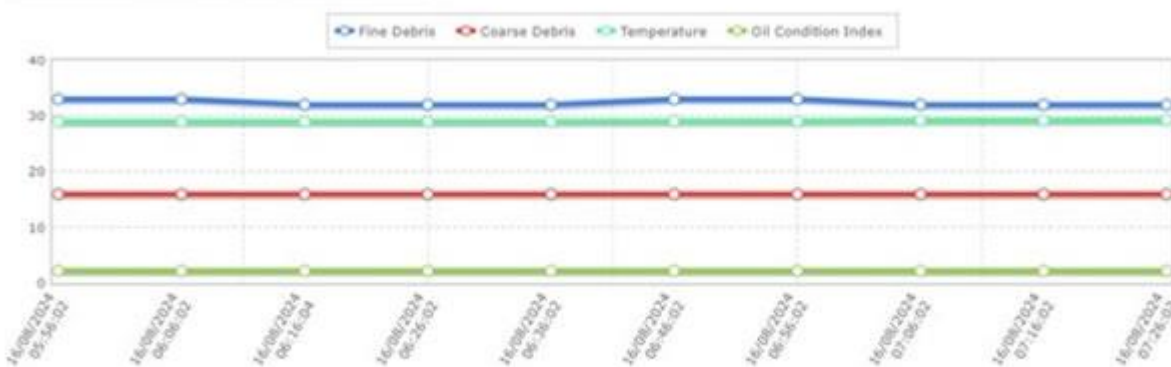
“Historical data from the equipment, including reports on part replacement, oil drain intervals and oil analysis will also be valuable in providing an effective predictive maintenance program for the future,” he said.

Sensor Results

Time Stamp	Fine Debris	Temperature	Sensor ID	Site	Unit	Compartment	Coarse Debris	Oil Condition Index
16/08/2024 05:56:02	33	29.0	1122	BORMINDO RIAU	MUD PUMP_TRIAL	PUMP	16	2.3
16/08/2024 06:06:02	33	29.0	1122	BORMINDO RIAU	MUD PUMP_TRIAL	PUMP	16	2.3
16/08/2024 06:16:04	32	29.0	1122	BORMINDO RIAU	MUD PUMP_TRIAL	PUMP	16	2.3
16/08/2024 06:26:02	32	29.0	1122	BORMINDO RIAU	MUD PUMP_TRIAL	PUMP	16	2.3
16/08/2024 06:36:02	32	29.0	1122	BORMINDO RIAU	MUD PUMP_TRIAL	PUMP	16	2.3
16/08/2024 06:46:02	33	29.1	1122	BORMINDO RIAU	MUD PUMP_TRIAL	PUMP	16	2.3
16/08/2024 06:56:02	33	29.1	1122	BORMINDO RIAU	MUD PUMP_TRIAL	PUMP	16	2.3
16/08/2024 07:06:02	32	29.2	1122	BORMINDO RIAU	MUD PUMP_TRIAL	PUMP	16	2.3
16/08/2024 07:16:02	32	29.2	1122	BORMINDO RIAU	MUD PUMP_TRIAL	PUMP	16	2.3
16/08/2024 07:26:02	32	29.3	1122	BORMINDO RIAU	MUD PUMP_TRIAL	PUMP	16	2.3

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A screen capture from Blue Oceans of the values obtained from the mud pump sensor.

The Internet of Things (IoT) has been incorporated by Techenomics on the path to smarter, more timely, reliable and cost-effective maintenance, including highly sophisticated oil condition sensors which gather and transmit data to monitor and ensure the health of machinery.

Integrating oil condition sensors with IoT platforms, enables Techenomics to create a smart system that monitors, analyses and reports oil conditions in real time directly to any device, thanks to Blue Oceans.

This integration offers numerous benefits as outlined in this video - <https://youtu.be/XfjL9hdJF-4?si=CKbRxT03iTulsu6h> – and including:

- Proactive maintenance - detect issues before they escalate.
- Cost reduction - save on repairs and downtime.

- Longevity - extend the life of your machinery.
- Convenience - monitor from anywhere, anytime.

The sensors deliver invaluable insights by detecting contaminants, monitoring oil viscosity and tracking temperature fluctuations and in this way serve as vigilant guardians delivering continuous and instantaneous data on the condition of the oil, helping Techenomics 'Support Engineering Excellence, One Sample at a Time'.

"This trial is another example of how Techenomics tailors its solutions to match each client's unique situation," Chris Adsett added.



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