



TECHENOMICS
INTERNATIONAL

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Press Release

On-site training by Techenomics helps mines manage asset health

Expertise shared so mine operators can do it themselves

Techenomics total fluid management solutions for mines extend beyond its proven services and products with expertise shared on-site for demonstrations and training.

The company is only too pleased to send its expert staff members who specialise in tribology, including oil sampling, analysis and interpretation of results, to mine sites to demonstrate to staff the correct procedures to help ensure effective lubricant management and contamination control.



CHRIS ADSETT
CEO OF TECHENOMICS

Techenomics CEO Chris Adsett said, importantly, this service also extended to training to help mine operators and their staff carry out their own asset health management programs moving forward.

“Doing this can help mine operators to reduce costs and enhance the performance of lubricants resulting in more efficient production.”

As part of a comprehensive asset health management program at one large, successful mine in a remote location, Techenomics sent an experienced, qualified Australian-based engineer to the site to work with mine staff and contractors over a 12-month period.



This program incorporated the use of magnetic plugs and condition monitoring including oil sampling at an on-site laboratory to provide a faster turnaround time for samples.

Techenomics designed and set up a detailed program to monitor magnetic plug results and the engineer provided training in all facets of the program.

On-site engineers were trained to continue a magnetic plug program with a system of weighing debris from plugs implemented to create a debris weight number to complement the visual grading.

Through the scope of this program, magnetic filter monitoring tools were added in the open pit grader, dozer and in other final drives of the mobile fleet.

A magnetic plug program is one of the key tools that monitors wheel motor asset condition in conjunction with the oil analysis. Overall, it helped the mine develop a wheel motor asset health program.

Oil sampling competency training was also implemented for the mine's open pit, the fleet maintenance program and at the concentrator.

The following training was conducted on-site for the mine team and contractors:

- OEI magnets for wheel motors – review what was being done and then develop and implement what best practices should be introduced to develop a numerical value for magnet condition assessment and act as a data feed for asset health team in CSV format.
- Develop and implement site-wide competency-based training on how to take an oil sample correctly.
- Develop, implement and train on how to dilute the viscosity of specific machine brand motor oils to allow for effective on-site testing.
- Develop, implement and train on how to take soot samples correctly, including the use of soot test kits.
- Develop, implement and training on how to take grease samples correctly and the use of grease thief kits and test kits.
- Site wide audit on oil handling management practices and contamination control with a formal conclusive report with actions and recommendations.
- Data entry training on Techenomics' cloud-based Blue Oceans Condition Monitoring Platform and use of the database.

The company's engineer also liaised with all departments at the mine to ensure their condition monitoring programs were producing the expected maximum returns.

A trial was also carried out to ascertain if by lowering the four-ball scar and weld specifications could prevent failures in certain engines used on-site.



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Another initiative of Techenomics at this mine was a HCM audit of the Truck Shop and Bulk Lube Storage facilities which helped improve fluid management procedures.

“As a result of the on-site efforts supported by Techenomics at its extensive off-site facilities, the mine's team was able to detect problematic areas that were causing downtime, unexpected failure and costly repairs,” Chris Adsett said.

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