## WEARCHECK

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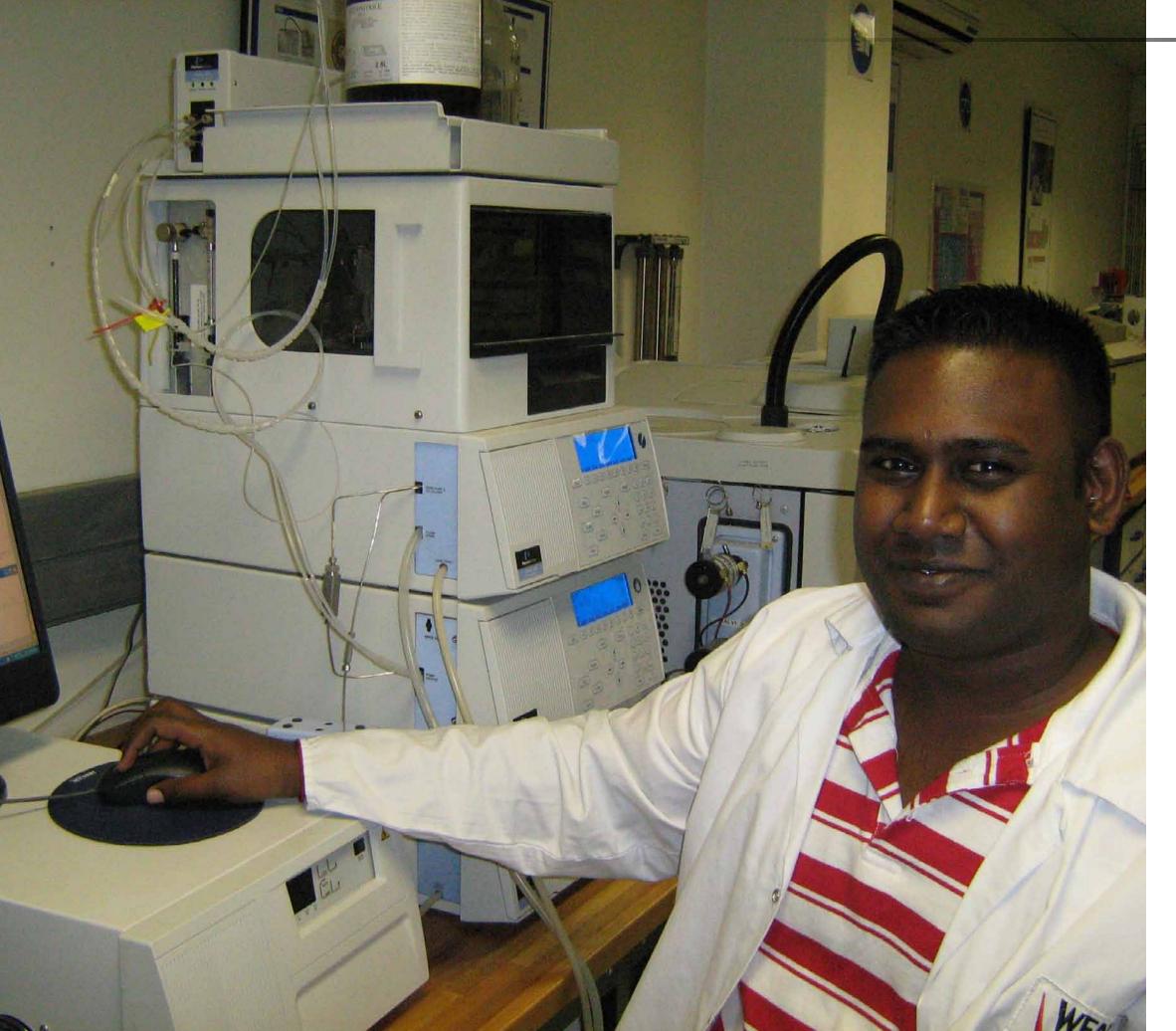


Neil Robinson, managing director of WearCheck, talks to Jayne Alverca about the value the company can add to a myriad of operations that rely on oil-lubricated plant and equipment



earCheck is the pre-eminent oil condition monitoring service in Africa, processing more than six hundred thousand samples each year. The company works with any business that uses machinery lubricated, heated or cooled by oil—this takes in the power generation, mining, earthmoving, industrial, transport, shipping, aviation and electrical industries, as well as general manufacturing.









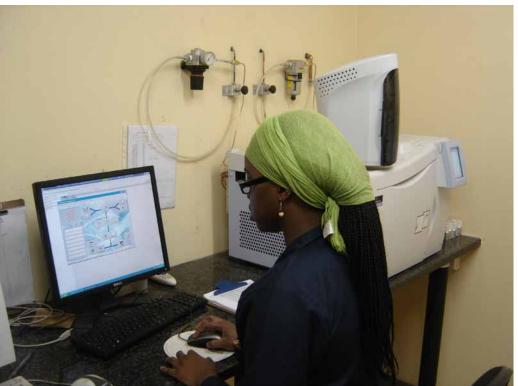
Managing director Neil Robinson likes to draw an analogy with a medical check on the human body to explain the importance of the service that WearCheck offers. "When we analyse an oil sample, it is not dissimilar to looking at a blood sample. A mine of information is revealed into the deeper workings and condition of the machine as well as the condition of the oil itself. The presence of chrome, for example, is a strong indicator



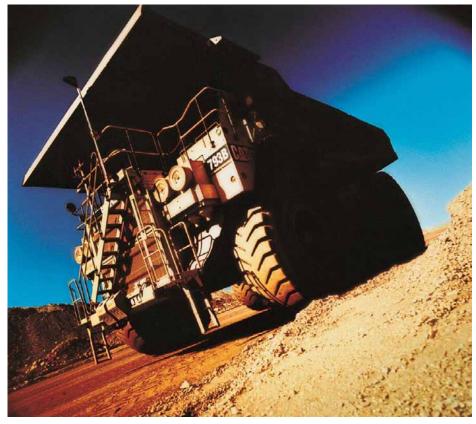


of a problem with the pistons; tin and copper can indicate problems with bearings; and silicon and aluminium together can indicate dirt or dust in the oil. We can then advise the operator that if they address this problem at the next service or sooner if the problem is severe, an expensive failure may be avoided. If no action is taken, then a failure and loss of productivity will almost certainly occur."

The cost implications of plant breakdown can be enormous, especially if it is a critical piece of plant, such as a main power transformer or shovel in open cast operation on a mining site. The harsh environmental conditions in which many industrial operations take place exacerbate the risk of technical failure at some point and long lead times are typically required to get technical support or if parts have to be flown in from another part of the world. Growing numbers of companies have planned or preventative maintenance schedules that include oil









condition monitoring, but it is not always easy to secure a quality service from an accredited laboratory.

WearCheck is the only oil analysis company in Africa to hold both the ISO 9001 quality certification and the ISO 14001 certification for its environmental management programme. The company is currently implementing the ISO 17025 laboratory centric quality management programme into its fuel and transformer oil laboratory and its Indian operation.

"Testing an oil sample is not that difficult," Robinson continues. "It is as simple as buying the necessary instrumentation, and there are a number of unaccredited laboratories which have done precisely that. However, we excel in three areas that set our testing apart. Firstly, we have an extremely well entrenched and rigorously applied quality management

system, which ensures that all the results leaving our laboratories are both accurate and reproducible.

"Secondly, there is the issue of interpretation or diagnosis of the analytical data coming from the laboratories," he continues. "Here in South Africa for example, we have a dedicated team of six engineers to look at the information and then take these decisions. They are incredibly skilled in identifying not only problems, but the remedial action that is required. This is a real challenge because there may be dozens of different manufacturers for a single category of equipment and each will have a different wear or oil profile. We are very fortunate to have two of our technicians who have each diagnosed over one million samples from different machines from all different manufacturers. Only an operation on our scale can develop this sort of expertise and we can stream information to our technicians via the internet from anywhere on the planet," he states.

"Thirdly, we have an extremely sophisticated system to manage the stream of data generated. Our IT infrastructure is unparalleled and we have our own in-house software writers. This is important because each sample can generate hundreds of variables according to the type of machine and its manufacturer. The analytical profile carried out on that particular sample and all of this data must be related back to a single sample number and machine component. Then there is the question of to whom and how we convey the results. Our service is very



flexible and it might be by SMS, phone, emailed pdf, our own supplied database or by offering access to the information online through our website."

Perhaps most impressive of all is that customers typically receive a full report not only of the results of the analysis, but also on the implications for their machinery, within 24 hours. Maintaining these short lead times is a critical element of the overall service offering. "Our laboratory equipment is extremely sophisticated and if we experience an instrument breakdown, it is potentially very serious as support is often not readily available. As a result, we tend to buy the same types of instruments from the same manufacturers and over the years we have learned to manage and maintain these instruments often better than the service providers themselves. If something does go wrong, we will invariably understand the cause and know how to fix it quickly," he adds.

WearCheck already has an extensive network of

seven laboratories across southern Africa, including Isando in Gauteng, Pinetown in KwaZulu-Natal, Middelburg, and Lumwana mine in Zambia, which is operated on behalf of a third party. In December 2011, another laboratory will become operational in Kitwe, Zambia which is wholly owned and operated by WearCheck. Testing is already up and running in Dubai and will soon commence in India.

However, it is the African opportunity that particularly appeals to Robinson; and he is keen to expand the reach of the business deeper into the continent. WearCheck already has a 60 per cent share of the market in South Africa and with such a large share, it is difficult to grow further. "For a company like ours, which is based in South Africa and already has a clear footprint, Africa is the continent of the future. There is growing political stability and a widespread mining and commodities boom and we can add a lot of value to these operations if we can contribute to an increase in machine uptime," he explains.

He believes it is much more cost-effective to undertake regular oil monitoring than it is to experience machine failure and then wait for expensive repairs, particularly for those in difficult-to-reach locations, which is often the case in Africa. However, for equipment based in remote geographical locations, the logistics of just getting samples to analysts can also present a major challenge. "In Africa, we have the great advantage of relative proximity as well as familiarity with all the legal and customs processes," he adds.

"We are known as a growing quality business which makes a continuous investment in the latest testing technology. That, combined with our track record in South Africa, makes us ideally placed to extend our service to many more locations during the years to come," he concludes.www.wearcheck.co.za

