



The **Lubricant** Company

STAR Condition Monitoring



Service • Testing • Analysis • Response



# Reduce maintenance costs and improve plant reliability and safety

STAR is one of today's most advanced condition monitoring programmes, designed to generate substantial operational and financial benefits for you.

STAR provides a programme of Service, Testing, Analysis and Response, delivering up-to-date trend analysis, and regular custom-designed action reports that enable easy implementation.

## Benefits of STAR Condition Monitoring

The early detection of lubricant degradation, destructive contaminants and potential plant failure will avoid equipment downtime.

Considerable cost savings can be made through the prevention of lost production and reduced maintenance costs. Maintenance can be scheduled during plant shut downs and plant reliability can be improved.

We are independent of all oil companies and have unique service-based audit processes and reporting programmes to optimise your oil life, improve the overall performance of your machine life and implement action plans.

- **Plant availability, maintenance and lubrication**

Significant reductions on overall costs can be achieved from improving the reliability of your mechanical components

- **Maintenance data analysis**

Highlights maintenance issues over chosen periods of time

- **Delivery options convenient to you**

Your results can be available to you within 48 hours accessible via email, hard copy, or securely online. The results are prepared in an easy to follow graphical and tabular format.

## Service focused on critical equipment

The central component of the STAR programme is the identification of critical equipment vital to your continued profitability. The audit will determine the sample frequency and the risk factor:

- Manufacturers requirements
- Environmental conditions
- Equipment history
- Operational conditions
- System design factors
- Cost of failure
- Maintenance cost

The findings of the audit are reported, discussed and agreed prior to implementation, and your report will advise on sample frequencies, analysis required, and reporting methods.

## Testing by an accredited laboratory

We offer an accurate and speedy oil testing service. Routine samples are analysed within 24 hours of arriving at the laboratory. Any problems are notified immediately as they become apparent. The following form the core tests carried out on an oil sample:

- Oil condition monitoring, to include the level of additives present in the oil confirming its type
- Contaminants that have entered the system with identification of possible source
- Wear metals resulting from contamination and wear

“One of our descaling pump lubrication systems was found to have a high level of water contamination, and after an investigation, it was found that the cooler unit was faulty. Had this gone unnoticed irreparable damage would have been done to the pump and gearbox which would have cost up to £45,000 to replace.”



“STAR identified a defective air induction system during routine monitoring of an important engine. Without the analysis report, a failure would have been unavoidable. A replacement engine would have cost £20,000.”

### Analysis of results interpreted by experts

Many wear analysis systems simply rely on the laboratory to process results which are based on standard data of previously agreed control limits. We have taken this one stage further.

After the first few samples have been processed, the system will establish its own control limits. Our Condition Monitoring Specialist who uses the service audit as a reference point confirms these limits.

### Response confirmed by written reports

On an annual basis, our condition monitoring specialist will compile a cost benefit report based on the findings of all the analysis.

Our specialists are trained in establishing the true cost and technical issues that make a real difference to your bottom line. The report forms the action base for the next twelve months; new plant is added to the schedule and sample frequencies adjusted as necessary.

### Condition monitoring for all of your critical equipment

We offer condition monitoring for all of your critical equipment including:

**Hydraulic Equipment:** The major causes of hydraulic equipment failure are contamination by water and dirt, and use of the wrong lubricant.

Hydraulic systems are sensitive to dirt ingress. By measuring the ISO code, we can work out the cleanliness in the system, and whether problems are likely to occur. We also monitor the oxidation of the oil and check whether any acids are forming which could lead to corrosion and degradation.

**Gearboxes:** Gearbox oils should be analysed for dirt and water contamination and elemental analysis to check if wear is occurring. It is important that the correct lubricant is being used and this can be determined by the analysis.

**Engines:** By implementing STAR, you can be confident in the knowledge that your engine is fit for service and that you are not going to have an unexpected breakdown or failure.

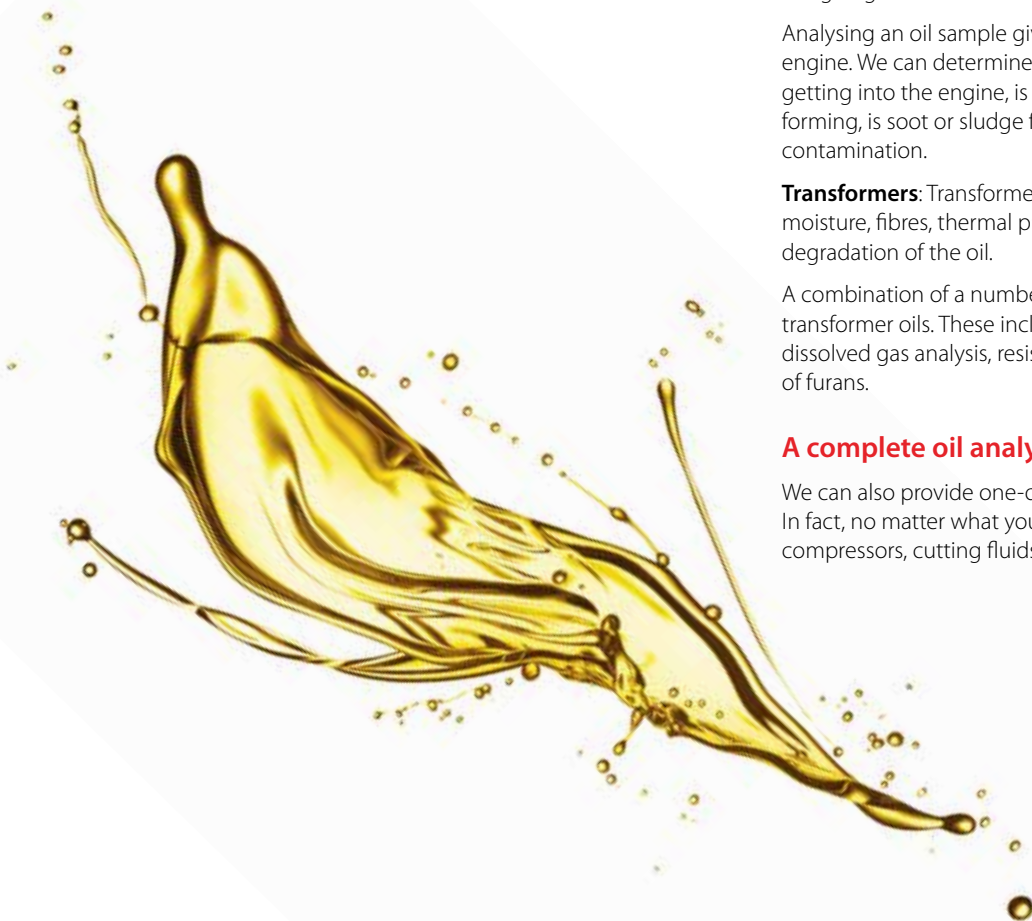
Analysing an oil sample gives us vital information about your engine. We can determine a number of things, including; is fuel getting into the engine, is wear occurring, are corrosive acids forming, is soot or sludge forming, and if there is any water contamination.

**Transformers:** Transformers can suffer from the presence of moisture, fibres, thermal problems, arcing and sparking, and degradation of the oil.

A combination of a number of tests can be used to analyse transformer oils. These include routine testing, PCB analysis, dissolved gas analysis, resistivity and DDF testing and analysis of furans.

### A complete oil analysis package

We can also provide one-off investigative analysis if problems arise. In fact, no matter what your requirements are, whether it's turbines, compressors, cutting fluids, or any other analysis, we can help!





## Condition Monitoring in 5 simple steps

- 1 Survey Equipment**

Your service engineer will survey your plant, and you will receive a report recommending sample frequencies and analysis required.
- 2 Create Sample List**

Once critical equipment has been identified, your service engineer will create a sample list for testing. The list will be agreed prior to testing.
- 3 Take Samples**

Your service engineer will then take the samples and send them to the lab. Alternatively, you can choose to take the samples yourself.
- 4 Lab Analysis**

The system will establish its own control limits, and a Lubricant Company specialist will confirm the limits, referencing the service audit.
- 5 Report Feedback Results**

Your service engineer will compile a cost-benefit report based on the findings of the analysis.



**The Lubricant Company**

**T: 0844 397 8000**

**E: [info@thelubricantcompany.co.uk](mailto:info@thelubricantcompany.co.uk)**

**[www.thelubricantcompany.co.uk](http://www.thelubricantcompany.co.uk)**