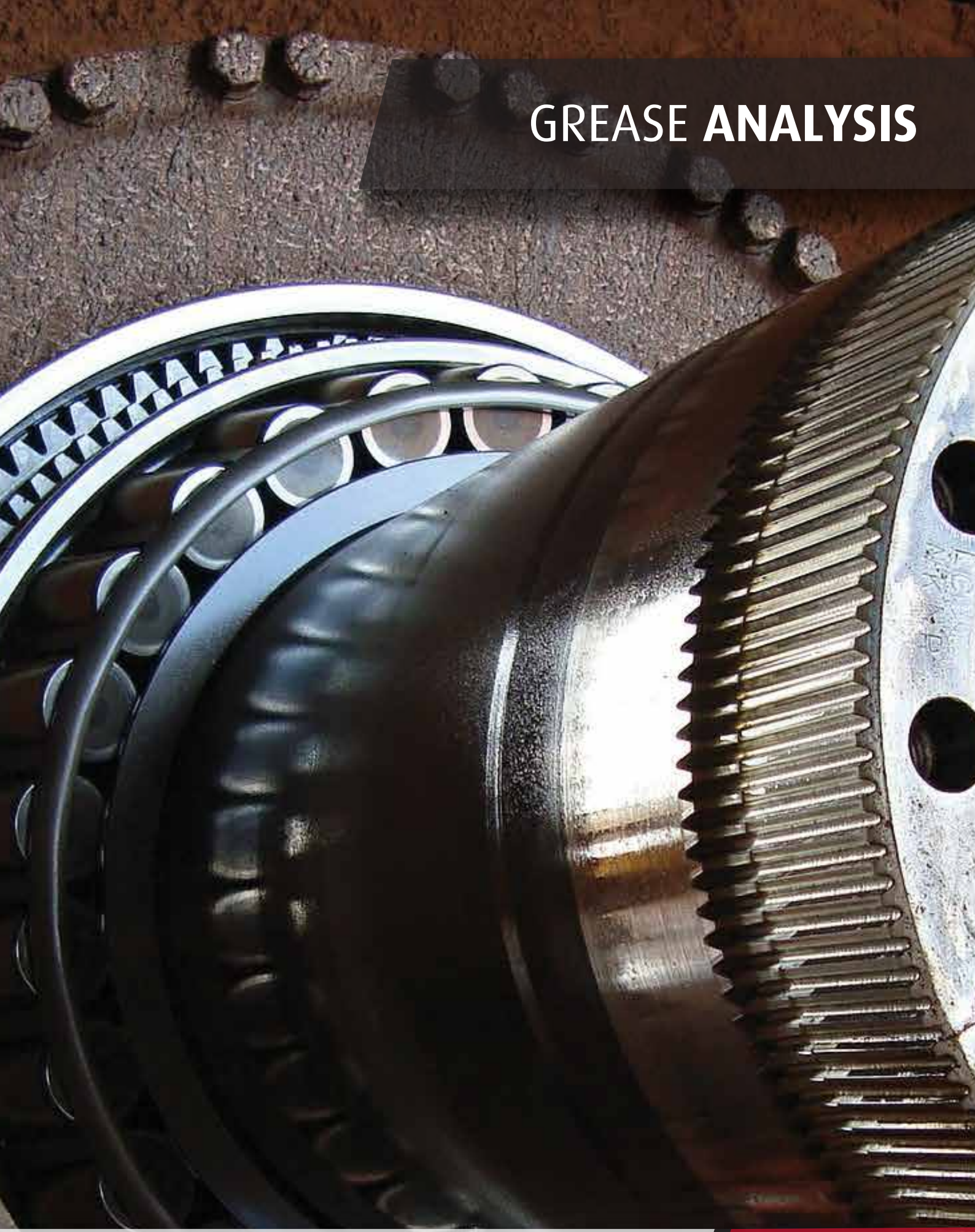
GREASE **ANALYSIS**



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Grease Analysis

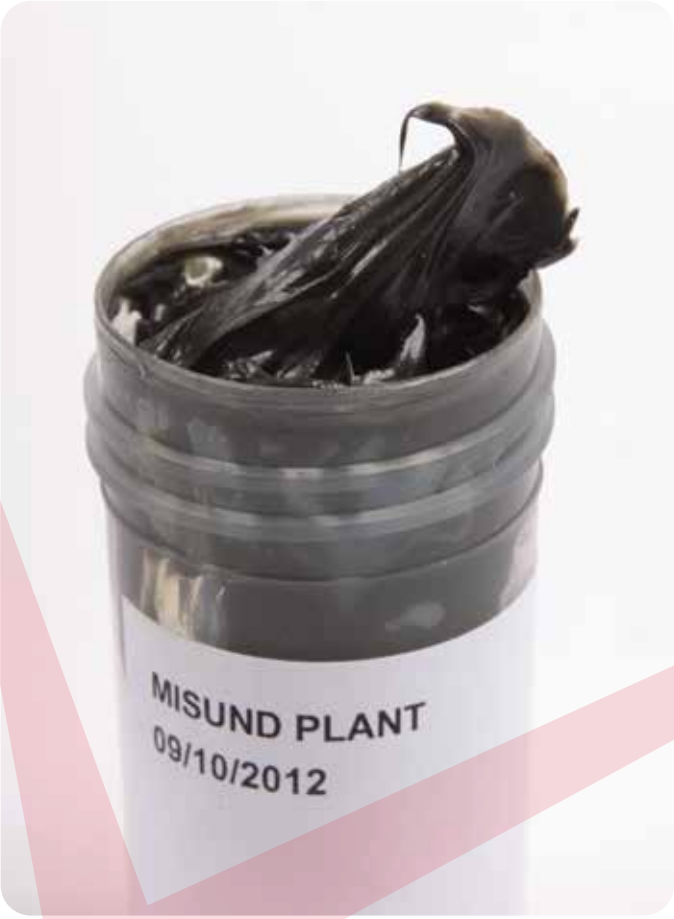
Oil analysis is able to monitor the health of the lubricant, the health of the machine and levels of contamination through a series of chemical and physical tests. However, sometimes it is more beneficial to have a component lubricated by grease.

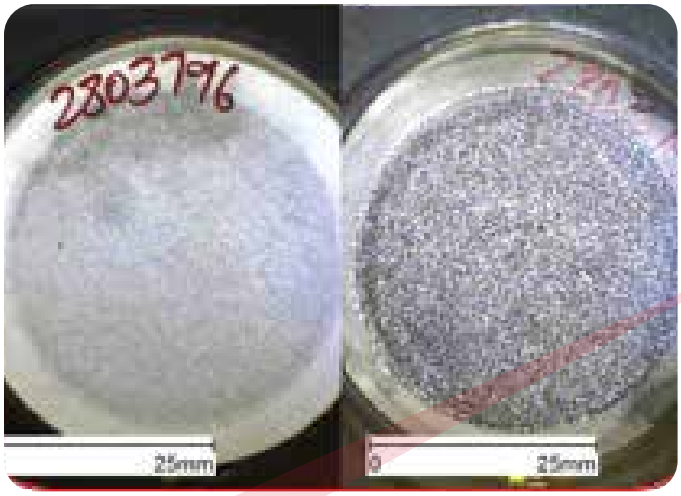
Grease samples can be submitted to WearCheck in exactly the same way that oil samples are. Ensure that the standard sample bottle is three quarters filled with grease, fill in the submission form and submit in the normal manner.

When the sample arrives in the laboratory the grease is dissolved in a special cocktail of solvents and violently shaken. Any debris present is separated magnetically and the magnetic wear particles are filtered through a standard debris membrane.

The grease sample is then dissolved in the standard laboratory solvent and analysed by the spectrometer for wear metals, contaminants and grease additives. Unfortunately, there is no universal solvent for grease as there is for most oils and it is almost impossible to take a representative sample. This means that spectrometric analysis can be suspect but it does give an idea of what is and is not present. The PQI of the ferrous debris is also measured.

Spectrometric analysis, PQI and debris analysis are then processed in the same manner as an oil sample but a diagnosis is based on debris and contamination only. Physical and chemical properties of the grease require instrumentation not normally used in an oil analysis laboratory. Photographs are taken of any relevant debris and the normal oil analysis report format is used.





Sample of an unused grease that contains very finely-divided aluminium particles that act as a solid lubricant.

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