

INDUSTRIAL

Take regular samples representative of normal operating conditions. Send them to POLARIS for testing and analysis.



POLARIS processes the sample. Testing is completed, recommendations are made and a data analysis report is generated.



POLARIS sends the results to the customer via e-mail. The customer evaluates the recommended course of action.



Customer takes action and performs the necessary maintenance.



Oil Analysis can put you a step ahead in the fast-paced arena of industrial plant production. If a "run to fail" philosophy often dictates your maintenance plan, give yourself the power to prevent small problems from becoming catastrophic failures. Quit making up for lost production time and start *planning* equipment downtime. Boost profits and your company's bottom line. *It costs so little to protect so much.*

- Maximize Production
- Increase Equipment Uptime
- Maintain Fluid Quality
- Improve Asset Reliability
- Extend Equipment Life
- Increase Profitability



POLARIS
Laboratories, LLC

It's not just fluid analysis. It's what we do with it.

TOLL FREE 877-808-3750 • www.polarislabs.com

ISO 17025:2005



Accredited

Oil Analysis can detect equipment failures in progress and point you straight to the root cause of problems, enabling you to *prevent catastrophic shutdowns and costly losses in production*. The two biggest enemies for any industrial application are wear and contamination. Base sampling frequency on the equipment's criticality to production as well as the environmental conditions under which it is forced to operate. The fact that a component's failure could shut down an entire line of production is worth far more consideration than replacement value alone.

Hydraulic Systems operate under extremely close tolerances demanding regular monitoring for fluid cleanliness.

- Particle Count can detect potential wear-causing dirt and contaminants early enough to take action
- Water is the biggest concern - it accelerates acid formation, increases oxidation and reduces lubricity - all lead to system failure
- Water by Karl Fischer provides a precise measurement of **how much water** is present in the fluid

Gearboxes should also be closely monitored for dirt and water contamination, although the type of wear occurring is usually the biggest concern.

- Direct Read Ferrography provides a ratio of large to small ferrous particles
- DR reports a quantitative value that indicates the amount of ferrous wear occurring – provides tremendously helpful trending information

Compressors may not be the most expensive equipment to replace but are often the most critical to production.

- Replacement parts may be difficult to obtain
- Valuable time and money are lost in unscheduled downtime
- Adding Particle Count to routine maintenance testing can predict component failure and enables you to regain control of the production schedule

Turbine reliability is always critical and oil changes or failure **always expensive**.

- Extreme operating tolerances demand clean fluids
- Routine trend analysis is crucial to predictive turbine maintenance - even subtle changes can indicate impending failure
- Combining Analytical Ferrography with routine monthly testing qualifies the type of wear as well as the source

Industrial Test Packages

Basic Industrial

Monitors the condition of both fluid and unit to determine wear and contamination levels.

Tests include:

- 24 Metals by ICP
- Water by Crackle
- Viscosity @ 40
- Acid Number
- Oxidation

*Direct Read Ferrography may be added to the basic or the advanced industrial test package to determine the **amount of ferrous wear occurring**.*

Advanced Industrial

Basic condition monitoring is made truly predictive with the addition of a Particle Count.

Tests include:

- 24 Metals by ICP
- Water by Crackle
- Viscosity @ 40
- Acid Number
- Oxidation
- Particle Count

Analytical Ferrography, a qualitative, rather than quantitative, analysis, provides digital imagery of the actual particles and may also be added to either basic or industrial advanced testing.