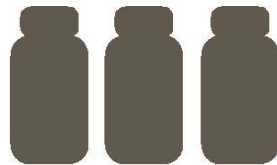


oil & Gas

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



ENLUSE Laboratories® processes the sample. Testing is completed, results are analyzed, recommendations are made and a report is generated.



ENLUSE Laboratories® emails the results to the customer. The customer evaluates the recommended course of action.



Customer takes action and performs the necessary maintenance.



Downtime is the oil and gas industry's number one enemy. In an environment where equipment is expected to run 24 hours a day, seven days a week under extreme conditions, downtime caused by equipment failure can quickly put a company out of business. Fluid analysis can predict equipment failure before it happens and minimize downtime - saving you time and money. It costs so little to protect so much.



Fluid analysis can detect equipment failures in progress and point you straight to the root cause of problems, enabling you to prevent catastrophic failures and costly losses in production. The coolant in the system is equally as important to monitor to ensure proper heat transfer and mechanical health of the system. No matter what the application - on or off-shore drilling, field services or oil and gas production - if equipment is down, it's costing you money. Highly contaminated operating environments, extreme operating conditions and the economics of equipment replacement only increase the value of fluid analysis as a necessary part of managing asset reliability.

Diesel Engines

Diesel engine oils should be tested routinely for contamination and wear.

TEST PACKAGES - OIL

Basic - Monitors both the unit and the fluid for wear and contamination

- 24 Metals by ICP
- Viscosity @ 100°C
- % Fuel Dilution
- % Soot
- % Water

Advanced - Safely extend oil drain intervals by determining the fluid's suitability for continued use

- All Basic Package Tests
- Base Number
- Oxidation/Nitration

TEST PACKAGES - DIESEL FUEL

Basic - Detects problems causing fuel filter plugging and determines the fuel's impact on fuel filter life

- 24 Metals by ICP
- Pour Point
- Water and Sediment
- Bacteria, Fungi and Mold
- Thermal Stability

Advanced – Determines if the product in bulk storage tanks complies with required supplier specifications

- All Basic Package Tests
- Viscosity
- PPM Sulfur
- API Gravity
- Flash Point
- Cetane Index
- Cloud Point
- Distillation
- * Additional testing available

TEST PACKAGES - COOLANT

Basic - Basic testing monitors the corrosive attributes of the coolant itself – acidic or alkaline – in addition to chemical or mechanical attack on metal – additive or inhibitor present:

- Visual (color, oil and/or fuel contamination, foam magnetic/non-magnetic precipitation and odor)
- pH
- Glycol
- Freeze Point
- Boil Point
- Nitrite
- TDS (Total Dissolved Solids)
- Specific Conductance
- Carboxylic Acid Pass/Fail (Shell, Chevron or Cat ELC only)
- SCA Number
- Total Hardness
- Corrosion, Contaminant and Inhibitor Metals (Iron, Copper, Aluminum, Lead, Tin, Zinc, Silver, Calcium, Magnesium, Silicon, Phosphate, Boron, Molybdenum, Sodium, Potassium)
- ELC Basic Coolant Analysis Additive (Benzoate, 2-Ethylhexanoic acid, Sebacic acid, Octanoic acid, p-Toluic, MBT, TT Z, BZT)

Advanced - Advanced testing identifies possible sources of problems detected in Basic Coolant Analysis such as combustion gas leaks, air contamination, electrical ground problems, localized overheating, chemical breakdown or other contamination sources inside or outside the system. It includes all tests in Basic Coolant Analysis plus:

- Contaminants (Chloride and Sulfate)
- Inhibitors (Nitrite and Nitrate)
- Degradation Acids (Glycolate, Formate, Acetate and Oxalate)

Pump and Gearbox

TEST PACKAGES

Basic

- 24 Metals by ICP
- % Water by Crackle
- Viscosity @ 40°C or 100°C

Advanced

- 24 Metals by ICP
- % Water by Crackle
- Viscosity @ 40°C or 100°C
- Total Acid Number
- Particle Quantifier

Hydraulics

TEST PACKAGES

Basic

- 24 Metals by ICP
- % Water by Crackle
- Viscosity @ 40°C

Advanced

- 24 Metals by ICP
- % Water by Crackle
- Viscosity @ 40°C
- Total Acid Number
- Water by Karl Fischer
- ISO Particle Count

Natural Gas Engine and Compressor

TEST PACKAGES

Basic

- 24 Metals by ICP
- % Water by Crackle
- Viscosity @ 40°C or 100°C

Advanced

- 24 Metals by ICP
- % Water by Crackle
- Viscosity @ 40°C or 100°C
- Total Acid Number
- Oxidation/Nitration

