FLUID & LIFE

DRILLING INDUSTRY

Tight production deadlines, remote job sites, severe equipment load factors and rig sample compliance present tough challenges for drilling equipment.

Oil analysis gives you a window inside your equipment to identify and resolve mechanical issues at an early stage. Plus, by using Fluid Life's myLab[™] web-based reliability program management tool, you have the ability to track and manage rig sample compliance effortlessly.



Get the edge with <mark>routine</mark> fluid analysis

- Detect failures at an early stage
- Tighten up your contamination control efforts
- Manage machinery conditions at remote sites
- Prolong the life of your auxiliary equipment
- Optimize your oil drain intervals
- Ensure quality and cleanliness of diesel fuel
- Protect the investment of your diesel engines
- Maintain cooling system efficiency
- Plan and schedule upcoming mechanical repairs
- Manage rig sample compliance via myLab



Drilling Test Packages

Fluid Life offers specially designed, industry specific test packages to support your equipment reliability needs. Our Drilling 1: Basic package provides a broad overview of fluid condition across a variety of components. Drilling 2: Advanced also focuses in on particulate contamination in the hydraulics and top drive by ISO particle counts giving you a more comprehensive idea of whats happening in your rig.

TEST	DRILLING 1: BASIC	DRILLING 2: ADVANCED
Spectroscopy (25 Elements)	Х	Х
Viscosity (40C or 100C)	Х	Х
Water by Crackle	Х	Х
Soot by FTIR (Engines)	Х	Х
% Glycol, Triggered GC (Engines)	Х	Х
% Fuel, Triggered GC (Engines)	Х	Х
Oxidation/Nitration/Sulfation by FTIR (Engines)	Х	Х
ISO Particle Count (Hydraulics, Top Drives)		Х

A variety of individual tests are also available on an à la carte basis.

Drilling Testing Recommendations

The following recommendations are suggested for the various drilling rig components by test package.

COMPONENT	DRILLING 1: BASIC	DRILLING 2: ADVANCED
Mud Pump	Х	
Top Drive Gear Box	Х	
Rotary Table	Х	
Transmission	Х	
Gear Boxes	Х	
Engines	Х	
Hydraulics - Main Hydraulic		Х
Hydraulics - Catwalk		Х
Accumulators		Х



Suggested Sample Schedule

COMPONENT	SAMPLE FREQUENCY	
Engines	Every 250 hours	
Mud Pump (Power End)	Every 30 Rig Operating Days	
Top Drive Gear box	Every 30 Rig Operating Days	
Hydraulic System (Catwalk, Top Drive, Draw-works)	Every 30 Rig Operating Days	
Rotary Table	Every 90 Rig Operating Days	
Transmissions	Every 90 Rig Operating Days	
Gear Boxes	Every 90 Rig Operating Days	

Fluid Analysis Program Features

- ISO 17025 laboratory quality system
- Custom test packages for the drilling industry
- Flexible sample registration options
- Expedient freight options
- Next day laboratory turnaround available
- Convenient and flexible reporting options
- Sample Rank[™] results evaluation
- myLab[™] on-line data management toolkit
- Reliability consulting services
- Professional training seminars
- Four laboratories across North America and 40+ years experience
- Customer Care toll-free support

Contact Fluid Life to purchase your test kits and associated sampling supplies.

We're a company that's All Ways Reliable. From analysis and evaluation to planning and strategy, Fluid Life has the expertise to help you achieve a higher level of reliability.

EQUIPMENT RELIABILITY SERVICES

EDMONTON, AB | BRANTFORD, ON | MINNEAPOLIS, MN | IRVING, TX Toll Free: 877.962.2400 www.fluidlife.com