

Wind Turbine Fluid Analysis

Oils | Greases



BUREAU
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Benefits of Wind Turbine Fluid Analysis

Bureau Veritas wind turbine oil analysis programs enable our clients to meet customer demand with a proactive means of increasing operational efficiencies. Our programs address the environmental, operational and mechanical challenges of cost-effectively maintaining wind turbine reliability.

Why You Should Test

Oil analysis is critical to maximizing wind turbine uptime and planning for downtime. Extreme temperature changes, load variations and contamination make oil analysis an invaluable tool for monitoring:

- Contamination
- Component Wear
- Lubricant Degradation

In determining a lubricant's remaining useful life, oil analysis plays a significant role in:

- Safely extending oil change intervals
- Reducing lubricant, labor and disposal costs

What You Should Test

In determining what components to test, consider criticality to overall production, susceptibility to environmental operating conditions, accessibility for maintenance and the costs of unscheduled maintenance, overhaul or replacement.

- Main gearbox
- Hydraulic Pitch Actuator (Brake)
- Bearings
- Blade
- Yaw

Test with Bureau Veritas

Our team of experts gives you the tools and support you need to take informed, decisive maintenance action that maximizes production. You get more than test results – Bureau Veritas wind turbine oil analysis is:

- **Insightful** – LOAMSSM is the global platform for managing program data
- **Actionable** – Smart laboratory systems and expert data analysts equal recommendations that save money and equipment
- **Personable** – Customer care and consultation services are focused on the highest return for your oil analysis investment

www.bureauveritas.com/oil-analysis

Photo Credit: J. Ciria



Wind Turbine Oil and Grease Test Packages

Industrial lubricants and greases are designed to optimize equipment performance – often with additives specific to extreme pressures and temperatures, wear, oxidation and foaming. Bureau Veritas wind turbine oil analysis and grease analysis programs can determine if the proper lubricant or grease is being used and whether or not additive levels are providing adequate component protection.

TEST	COMPONENTS					
	Main Gearbox (oil)	Hydraulic Pitch Actuator (Brake) (oil)	Bearings (grease)	Pitch (grease)	Blade (grease)	Yaw (grease)
Appearance	X	X	X	X	X	X
Elemental Analysis (Wear, Contaminant & Additive Elements by ICP)	X	X	X	X	X	X
Viscosity @ 40°	X	X				
Oxidation/Cross Contamination (by FTIR)	X	X	X	X	X	X
Total Acid Number (TAN)	X	X				
Water (by Karl Fischer)	X	X	X (optional)	X (optional)	X (optional)	X (optional)
PQi	X	X				
Particle Count	X	X				
FDM+ (PQ)			X	X	X	X



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