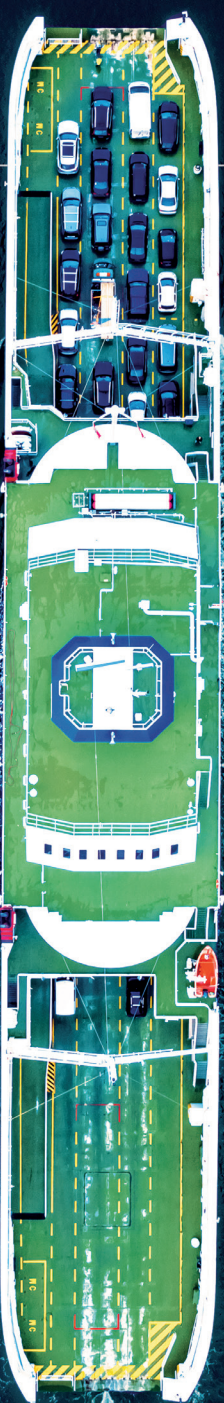




Shell
LubeAnalyst

Helping you optimise
your operations through
technical expertise and
digital services

Shell Marine



Shell LubeAnalyst is a comprehensive technical support programme that combines technical and digital expertise to generate insights that can help to optimise the lubrication and maintenance of a vessel's engine and equipment.

The Shell LubeAnalyst service includes:

- o **diagnosis** supported by oil laboratory testing;
- o **detailed reports** on oil and equipment condition;
- o an **online portal and app** for 24/7 access to data and insights and other useful features; and
- o support from a dedicated **Shell Marine Technical Advisor**.

Key benefits:

- o Make appropriate lubricant selections.
- o Reduce unnecessary downtime and cost.
- o Save time and reduce errors.



Shell LubeAnalyst reports feature:

- o colour coding for out-of-range values or trends;
- o customer and equipment details;
- o equipment and oil running hours;
- o physicochemical parameters;
- o contaminant details;
- o wear metal analysis;
- o additive levels; and
- o detailed explanations and advice from experts.



Optimise your operations through technical expertise and digital innovation

Technical expertise

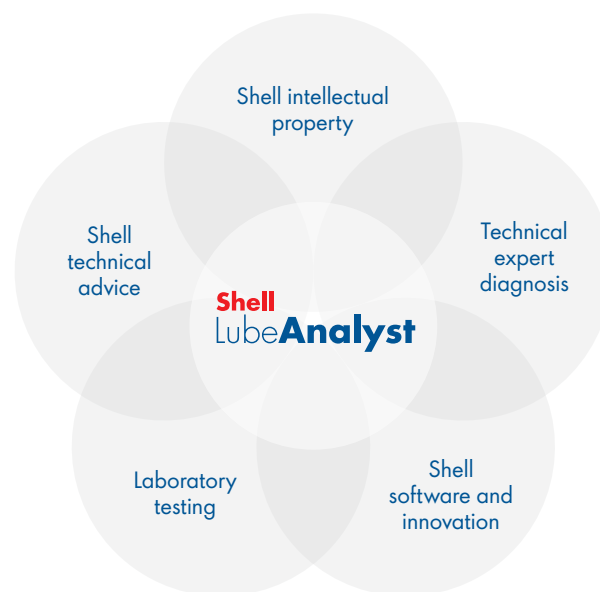
Shell's lubricant and machinery professionals

oversee the diagnosis process to ensure the high-quality advice and inputs, which includes:

- checking that testing parameters are aligned to the latest original equipment manufacturer (OEM) recommendations;
- adding manual diagnosis and advice to sampling results that fall outside the standard range.

Dedicated Shell technical advisors work with customers to:

- recommend lubricants, test suites and sampling schedules for their operations;
- assess data and trends relating to their equipment to diagnose issues; and
- advise on corrective actions and potential opportunities for improvement (e.g., extending oil-drain intervals).



Digital innovation

Shell LubeAnalyst uses an **advanced screening engine** that:

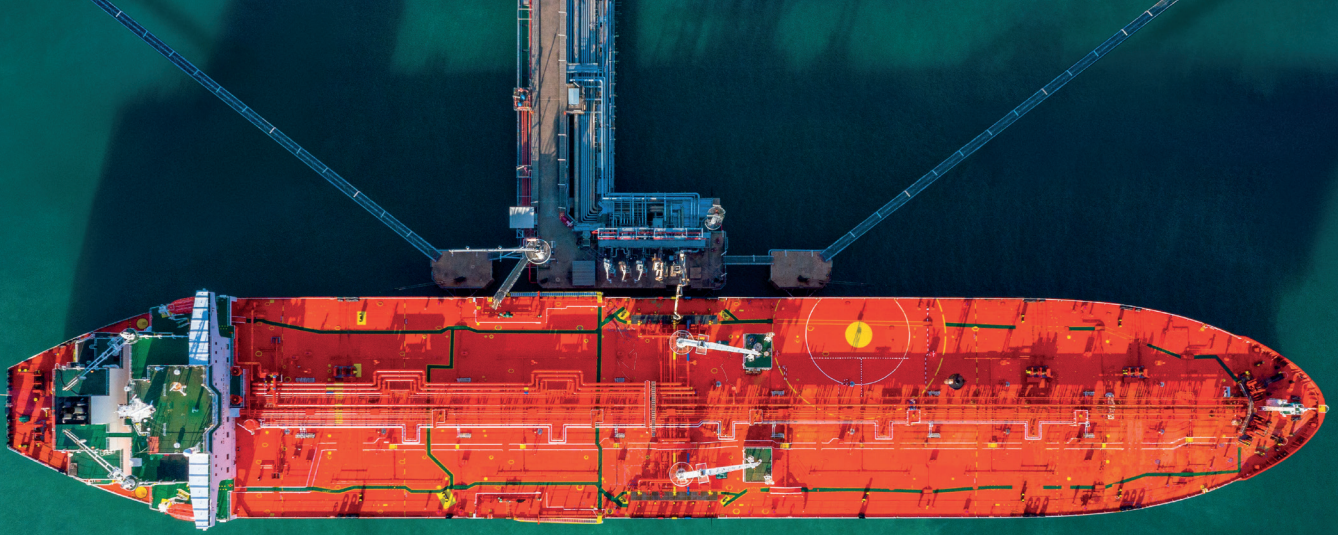
- includes more than 1,600 manufacturer and model-specific profiles that enable a customised analysis of each oil sample; and
- applies advanced algorithms using Shell's lubricant knowledge base, which enables screening and reporting on oil performance that is specific to a particular machine, lubricant and application.

The Shell LubeAnalyst **cloud-based portal and app** is an easy-to-use and highly secure **sample management tool**.

- Make quick, informed decisions with a customised insights dashboard.
- Benchmark equipment across your fleet (and others in the Shell database).
- View performance trends over time compared with identical equipment.
- Save time and reduce errors by digitally pre-registering your samples.
- Receive sampling reminders and email notifications of your sample status.
- Find specific lubricant recommendations for your vessels and equipment.
- Access your diagnosis reports and equipment performance records, 24/7.

Receive your data and insights directly through an API from Shell LubeAnalyst to your company systems.*

*Integration with the Shell LubeAnalyst system is dependent on compatibility with client's computerised maintenance management system. The Shell LubeAnalyst API is secured with OAuth 2.0; all requests must be secure. To benefit from this service, the client will need to provide resources to configure and test the API.



Scan the QR codes to watch how-to videos about key features of the Shell LubeAnalyst portal.



Benchmarking



Download
LubeSurvey



Add comments
to a sample



Sample
pre-registration



Set up a sample
reminder

Shell Lube**Monitor**

A dedicated service for two-stroke engine cylinders

Two-stroke vessel operators can sign up for Shell LubeMonitor, the go-to solution for cylinder condition monitoring that uses digital technology to make it simpler. Combining Shell LubeAnalyst laboratory testing results, onboard testing data and scavenge port inspection results to provide enhanced insights, it helps to monitor performance from fleet level all the way down to a vessel's cylinders.

To learn more, visit: www.shell.com/marine/lubemonitor

Shell LubeAnalyst is supported by reliable laboratory testing services from seven ISO-accredited laboratories in:

- Australia;
- Brazil;
- China;
- India;
- Singapore;
- United Kingdom; and
- USA.



For more information, contact your Shell Marine Technical Advisor.

Scan to learn more about our Technical and Digital Services.
Visit www.shell.com/marine/lubeanalyst

Shell Marine