

Shell
LubeAnalyst

Round-the-clock expert diagnosis

for optimised performance

Access equipment-based insights from Shell industry experts to help reduce downtime, so you can focus on your business. Our preventative maintenance advice can help you achieve more go time.



Beyond data: Shell LubeAnalyst

provides access to **100+** different tests for high-detail oil condition monitoring insights to help you get the most out of every drop.

Health check your oil and equipment

With comprehensive insights, you can:

- Uncover potential failures before they occur
- Identify areas to optimise operations
- Access a trends-based profile of your equipment

Customers also get access to:



- An easy-to-use digital platform which provides an up-to-date overview of lubricant performance in your equipment in one dashboard
- A mobile app for fast, accurate oil sample registration

SHELL
LUBRICANT
SOLUTIONS



A range of options to suit a range of needs:

Shell LubeAnalyst Standard (prepaid)

Traffic light check for oil to assess if intervention is necessary. Kit includes:

- Bottles packed by 10 x 60 ml
- 10x pre-paid sample forms
- 10x pre-addressed envelopes
- Bottle stickers
- Pipe and Pump ordered separately

Shell LubeAnalyst Plus (prepaid)

Deeper test insights and comparisons to industry benchmarks to help support maintenance planning and drive down total cost of ownership. Kit includes:

- Bottles packed by 10 x 60 ml
- 10x pre-paid sample forms
- 10x pre-addressed envelopes
- Bottle stickers
- Pipe and Pump ordered separately

Shell LubeAnalyst Premium (post-paid)

Troubleshooting for issues in high-value equipment. Close monitoring and specialised testing provide insights for specific applications.

- Bottles, Pipe and Pump ordered separately
- Bottle options available*:
 - 10 x 250 ml
 - 6 x 500 ml
 - 6 x 1000 ml
 - 6 x 2000 ml

*Bottle kits will be shipped with sample forms, pre-addressed envelopes and bottle stickers.

Accessories

Bottles packed by 10 - 60 ml

Bottles packed by 10 - 250 ml for Premium test suites

Bottles packed by 6 - 500 ml (plastic) for Premium test suites

Bottles packed by 6 - 1000 ml (plastic) for Premium test suites

Bottles packed by 6 - 2000 ml (plastic) for Premium test suites

Bottles packed by 6 - 500 ml (glass) for Premium test suites

Bottles packed by 6 - 1000 ml (aluminium) for Premium test suites

Bottles packed by 10 x 250 ml (plastic) for LA Premium Panolin test suites

Tubing 25 m

Sampling Pump for 60 ml bottles

Pump Adaptor for larger bottle sizes (500 ml)

Shell LubeAnalyst Premium testing for Shell Panolin biodegradable lubricants (post-paid)

Includes Shell LubeAnalyst advanced test suites to closely monitor Shell PANOLIN's high-performance biodegradable products.

A specialised FT-IR add-on test is available for post-conversion analysis to confirm residual mineral oil content. Please refer to the "Shell PANOLIN Changeover Advice" for further information.

Kit details:

- Sample size: 10 x 250 ml bottles "LA Premium 250 ml bottles (38mm thread) for 10 samples + labels (EU)"*
- Pipe and Pump ordered separately
- Specialty FT-IR add-on test – LA Optional Mineral Oil Content (FTIR)**

*Bottle Kits will be shipped with sample forms and bottle stickers.

**Only recommended for post-system conversion from mineral oil, or if mineral oil was added to a system running Shell PANOLIN lubricants.

Test suite kits

On & off highway



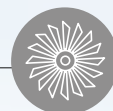
	Transmissions Axles & Diffs Standard	Transmissions Axles & Diffs Plus	Transmissions Axles & Diffs Premium
Viscosity @ 100 (ASTM D445)	•	•	•
Appearance (Visual)	•	•	•
Elemental Analysis (ASTM D5185)	•	•	•
Water Content (Aquatest/KF)	•	•	•
Total Acid Number (ASTM D664)		•	•
PQ Index (In House)		•	•
Viscosity @ 40 (ASTM D445)			•
ISO Particle Count (ISO 4406)			•

	Engines Standard	Engines Plus	Engines Premium
Viscosity @ 100 (ASTM D445)	•	•	•
Elemental Analysis (ASTM D5185)	•	•	•
Water Content (Aquatest/KF)	•	•	•
Flash Point (Pass/Fail) (ASTM D3828)	•	•	•
Demerit Point (In House)	•	•	•
Index of Contamination (IC) (In House)	•	•	•
Merit of Dispersancy (MD) (ASTM D7899)	•	•	•
FTIR Oxidation, Nitration (ASTM E2412/DIN 51453)		•	•
FTIR Fuel, Soot (DIN 51453)		•	•
FTIR Glycol (In House)		•	•
Total Base Number (ASTM D2896)		•	
Total Base Number (ASTM D4739)			•
PQ Index (In House)			•

	Hydraulics Standard	Hydraulics Plus	Hydraulics Premium
Viscosity @ 40 (ASTM D445)	•	•	•
Elemental Analysis (ASTM D5185)	•	•	•
Water Content (Aquatest/KF)	•	•	•
Viscosity @ 100 (ASTM D445)		•	•
Viscosity Index (ASTM D2270)		•	•
ISO Particle Count (ISO 4406)		•	•
Total Acid Number (ASTM D664)		•	•
PQ Index (In House)			•



Test suite kits



Industrial – power

	Stationary & Power Diesel Engines Standard	Stationary & Power Diesel Engines Plus	Stationary & Power Diesel Engines Premium
Viscosity @ 100 (ASTM D445)	•	•	•
Elemental Analysis (ASTM D5185)	•	•	•
Water Content (Aquatest/KF)	•	•	•
Flash Point (Pass/Fail) (ASTM D3828)	•	•	•
Demerit Point (In House)	•	•	•
Index of Contamination (IC) (In House)	•	•	•
Merit of Dispersancy (MD) (ASTM D7899)	•	•	•
Total Base Number (ASTM 2896)	•	•	•
FTIR Oxidation, Nitration (ASTM E2412/DIN 51453)		•	•
FTIR Fuel, Soot (DIN 51453)		•	•
Total Acid Number (ASTM D664)			•

	Turbines Standard	Turbines Plus	Turbines Premium (500 ml)
Viscosity @ 40 (ASTM D445)	•	•	•
Appearance (Visual)	•	•	•
Elemental Analysis (ASTM D5185)	•	•	•
Water content (Karl Fischer) (ASTM D6304)	•	•	•
Total Acid Number (ASTM D664)	•	•	•
ISO Particle Count (ISO 4406)		•	•
Colour (ASTM D1500)		•	•
Millipore solids (0.8 Micron Membrane) (ISO 4405)		•	•

	Gas engine Standard	Gas engine Plus	Gas engine Premium
Viscosity @ 100 (ASTM D445)	•	•	•
Elemental Analysis (ASTM D5185)	•	•	•
FTIR Oxidation, Nitration (ASTM E2412/DIN 51453)	•	•	•
Total Acid Number (ASTM D664)	•	•	•
Water Content (Aquatest/KF)	•		
Water Content (Karl Fischer)(ASTM D6304)		•	•
FTIR Fuel, Soot (DIN 51453)		•	•
Sulphur Content (ASTM D7220)		•	•
Total Base Number ASTM D2896		•	•
Viscosity @ 40 (ASTM D445)			•
IpH (ASTM D7946)			•



Test suite kits



Industrial – geneneral manufacturing

	Compressors Standard	Compressors Plus	Compressors Premium
Viscosity @ 40 (ASTM D445)	•	•	•
Appearance (Visual)	•	•	•
Elemental Analysis (ASTM D5185)	•	•	•
Water Content (Aquatest/KF)	•	•	•
Total Acid Number (ASTM D664)	•	•	•
ISO Particle Count (ISO 4406)		•	•
FTIR Oxidation, Nitration (ASTM E2412/DIN 51453)			•

	Hydraulics Standard	Hydraulics Plus	Hydraulics Premium
Viscosity @ 40 (ASTM D445)	•	•	•
Appearance (Visual)	•	•	•
Elemental Analysis (ASTM D5185)	•	•	•
Water Content (Aquatest/KF)	•	•	•
Total Acid Number (ASTM D664)	•	•	•
ISO Particle Count (ISO 4406)		•	•
Colour (ASTM D1500)			•
Millipore solids (0.8 Micron Membrane) (ISO 4405)			•

	Gearbox & Couplings Standard	Gearbox & Couplings Plus	Gearbox & Couplings Premium
Viscosity @ 40 (ASTM D445)	•	•	•
Appearance (Visual)	•	•	•
Elemental Analysis (ASTM D5185)	•	•	•
Water Content (Aquatest/KF)	•	•	•
Total Acid Number (ASTM D664)	•	•	•
ISO Particle Count (ISO 4406)		•	•
PQ Index (In House)		•	•
Demulsibility (ASTM D1401)			•

	Bearings & Circulating systems Standard	Bearings & Circulating systems Plus	Bearings & Circulating systems Premium
Viscosity @ 40 (ASTM D445)	•	•	•
Appearance (Visual)	•	•	•
Elemental Analysis (ASTM D5185)	•	•	•
Water Content (Aquatest/KF)	•	•	•
Total Acid Number (ASTM D664)	•	•	•
ISO Particle Count (ISO 4406)		•	•
Demulsibility (ASTM D1401)			•

Additional power premium test suites

	Turbine Oil (250 ml) (3 Monthly)	Turbine Oil (1L) (6 Monthly)	Turbine Oil (2L) (12 Monthly)	Turbine Control Fluids	Turbine Aero Derivatives (500 ml)
Viscosity @ 40 (ASTM D445)	•	•	•	•	•
Appearance (Visual)	•	•	•	•	•
Colour (ASTM D1500)	•	•	•	•	•
Elemental Analysis (ASTM D5185)	•	•	•	•	•
Water content (Karl Fischer) (ASTM D6304)	•	•	•	•	•
Total Acid Number (ASTM D664)	•	•	•	•	•
Millipore Solids (0.8 Micron Membrane) (ISO 4405)	•	•	•	•	•
Conductivity (ASTM D2624)				•	
Chlorine Content (ASTM D4927/5384/ DIN 51408-2/IP 244)				•	
ISO Particle Count (ISO 4406)	•	•	•		•
FTIR oxidation, Nitration (ASTM E2412)	•	•	•		•
MPC Value (ASTM D7843)	•	•	•		
DR Ferrography (In House)					•
Foaming, Sequence II (ASTM D892)		•	•		
Foaming Sequence I, II and III (ASTM D892)		•	•		
Demulsibility (ASTM D1401)			•		
RPVOT (ASTM D2272)			•		
RULER (ASTM D6971)		•	•		
Air Release (ASTM D3427/IP 313)		•	•		
Anti Rust (ASTM D3427/IP 313)			•		

	Turbo Compressors	Gas Engine (DIN)	Gas Engine Landfill
Appearance (Visual)	•		
Millipore Solids (0.8 Micron Membrane) (ISO 4405)	•		
Viscosity @ 40 (ASTM D445)	•	•	•
IpH (ASTM D7946)		•	•
Sulphur Content (ASTM D7220)		•	•
Elemental Analysis (ASTM D5185)	•	•	•
Water Content (Karl Fischer) (ASTM D6304)	•	•	•
Total Acid Number (ASTM D664)	•	•	•
Viscosity @ 100 (ASTM D445)		•	•
Total Base Number (ASTM D2896)		•	•
Chlorine Content (ASTM D4927/5384/ DIN 51408-2/IP 244)			•
Colour (ASTM D1500)	•		
FTIR oxidation, Nitration (DIN 51453)		•	
FTIR Soot, Fuel (DIN 51453)		•	
FTIR oxidation, Nitration (ASTM E2412)			•
FTIR Soot, Fuel (ASTM E2412)			•

Additional power premium test suites –other sectors

	Refrigeration Compressor	Gas Fridge Compressor (PAG)	Refrigeration Compressor (Ammonia)	Heat Transfer & Seal Systems	Electrical & Transformer oils (500 ml)
	gen man	gen man	gen man	gen man	gen man
Viscosity @ 40 (ASTM D445)				•	•
Appearance (Visual)	•	•	•	•	•
Colour	•	•	•		
Elemental Analysis (ASTM D5185)	•	•	•		
Water Content (Karl Fischer) (ASTM D6304)	•	•	•	•	•
Total Acid Number (ASTM D664)	•	•		•	•
Total Base Number (ASTM D2896)			•		
Millipore Solids (5 Micron Membrane) (ISO 4405)		•			
Millipore Solids (0.8 Micron Membrane) (ISO 4405)	•		•		
DR Ferrography (ISU)	•		•		
DR Ferrography (DL)	•		•		
DR Ferrography (DS)	•		•		
Viscosity at 40C (DeGas)	•	•	•		
Flash Point (Pass/Fail) (ASTM D3828)				•	
Breakdown Voltage (IP 295)					•

	Fire Res Hydr HFB & HFC	Grease Lubricated Bearings (150 ml)	Industrial Gears (PAG)	Diesel Fuel	Coolant Systems
	gen man/steel	mining & gen man	mining & gen man	on/off highway	on/off highway
Appearance (Visual)	•	•	•		
Viscosity @ 40 (ASTM D445)	•		•		
Sulphur Content (ASTM D7220)				•	
Elemental Analysis (ASTM D5185)	•	•	•		
Water Content (Karl Fischer) (ASTM D6304)			•	•	
Total Acid Number (ASTM D664)	•		•		
Colour (ASTM D1500)			•		
Water Content (HFB) (In House)	•				•
Water Content (HFC) (In House)	•				
Density (Fuel) (ASTM D1298/IP 189)				•	
Micro Organism (MICRO TEST)				•	
Millipore Sludges (0.45 Micron Membrane) (ISO 4405)				•	
Density (Lubricant) (ASTM D4052)					•
Elemental Spec (Coolants) (ASTM D6130)					•
Ph Determination (ASTM D7946)					•
Millipore Filtration (In House)			•		

Shell PANOLIN biodegradable lubricants test suites (Europe)

	Hydraulic Systems	Gears & Couplings*	Engines On & Off Highway	Electrical & Transformer Oils**	Transmissions, Axles & Differentials*
Total Acid Number (TAN) (ASTM D664)	•	•		•	•
Appearance (Visual)		•		•	•
Colour (ASTM D1500)					
Metals (ASTM D5185M)	•	•	•		•
Millipore Sludges (0.8 Micron Membrane)	•				
Millipore Sludges (5 Micron Membrane)		•			
ISO Particle Count (ISO 4406)	•	•			•
Viscosity @ 40°C (ASTM D445)	•	•		•	•
Water Content (Karl Fischer) (ASTM D1744/D6304)	•			•	
PQ (Wear) Index (ASTM D8184)		•	•		•
Total Base Number (TBN) (ASTM D4739)			•		
Fuel Dilution (FIDGC)					
Blotter Spot (FT-IR)			•		
Viscosity @ 100°C (ASTM D445)			•		•
Water Content (Aquatest)		•	•		•
Dielectric Strength				•	
Flash Point (Pass/Fail)			•		

*We recommend that you order a Water by Karl Fisher add-on, in addition to these suites.

**This test suite requires a 500 ml sample.



Optional tests

LA Optional test Air Release (ASTM D3427/IP 313)
LA Optional test Anti Rusting (Fresh Water) (ASTM D665)
LA Optional test Anti Rusting (Salt Water) (ASTM D665)
LA Optional test Appearance + Colour (ASTM D665)
LA Optional test Asphaltenes (ASTM D6560/IP 143)
LA Optional test Blotter Spot (ASTM D7899)
LA Optional test Buchholz Gas Analysis (ASTM D3612)
LA Optional test Carbon Conradson (ASTM D189)
LA Optional test Chlorine Content (ASTM D4927/5384/DIN 51408-2/IP 244)
LA Optional test Colour (ASTM D4927/5384/DIN 51408-2/IP 244)
LA Optional test Conductivity (ASTM D2624)
LA Optional test Density Fuel (ASTM D4052)
LA Optional test Density (ASTM D2624)
LA Optional test Dielectric Strength (BV) (ASTM D1816/IEC 60156; ASTM D3300/IEC 60897)
LA Optional test Diesel Dilution (ASTM D3524)
LA Optional test Ferrography (In House)
LA Optional test Wear Severity Index (In House)
LA Optional test Filterability (With Water) (ISO 13357-1)
LA Optional test Filterability (Without Water) (ISO 13357-2)
LA Optional test Filterability Index (With Water) (ASTM E4869)
LA Optional test Filterability Index (Without Water) (ASTM E4869)
LA Optional test Flash Point (Pass/Fail) (ASTM D93/92)
LA Optional test Flash Point (PMCC) (ASTM D93)
LA Optional test Flash Point (Setaflash) (SETAFLASH)
LA Optional test Foaming (Seq 1) (ASTM D892)
LA Optional test Foaming (Seq 1+2+3) (ASTM D892)
LA Optional FT IR (Oxid & Nitr) (In House)
LA Optional FT IR (In House)
LA Optional Fuel Dilution (In House)
LA Optional Furanic Compounds (ASTM D5837)
LA Optional Glycol (In House/ASTM D2982)
LA Optional Insolubles N-Heptane (ASTM D893)
LA Optional Ionol Content % (In House)
LA Optional IpH (ASTM D7946)
LA Optional IR Special (In House)
LA Optional IR Spectrum (In House)
LA Optional Spectrometry (Additives) (ASTM D5185/6595)

LA Optional Spectrometry (Coolants) (ASTM D6130)
LA Optional Spectrometry (Grease) (ASTM D5185/6595)
LA Optional Spectrometry (Oils) (ASTM D5185/6595)
LA Optional Micro Organisms (MICRO TEST)
LA Optional Millipore Filtration Teflon (In House)
LA Optional Millipore Sludges (0.45µ) (ISO 4405)
LA Optional Millipore Sludges (0.8µ) (ISO 4405)
LA Optional Millipore Sludges (5µ) (ISO 4405)
LA Optional Nitrite (go/no go) (In House)
LA Optional Particle Count Visual (Visual)
LA Optional PCB Analysis (ISO C 27234)
LA Optional Penetration unworked (ASTM D217)
LA Optional Penetration worked (ASTM D217)
LA Optional Power Factor (ASTM D924)
LA Optional RPVOT (ASTM D2272)
LA Optional SAN (In House)
LA Optional Sulfur Content (ASTM D7220)
LA Optional TAN (D664) (ASTM D664)
LA Optional TBN (D2896) (ASTM D2896)
LA Optional TBN (D2896) degaz (ASTM D2896)
LA Optional TBN (D4739) (ASTM D4739)
LA Optional Viscosity 40°C (ASTM D445)
LA Optional Viscosity 40°C degaz (In House)
LA Optional Viscosity 100°C (ASTM D4739)
LA Optional Viscosity Index (ASTM D2270)
LA Optional Water Content (Aquatest/KF)
LA Optional Water Content (HFC) (In House)
LA Optional Water Content (KF) (In House)
LA Optional Demulsibility (ASTM D1401)
LA Optional Wear Index (PQ) (In House)
LA Optional Noack Evaporation Loss (ASTM D5800)
LA Optional Aniline Point (ASTM D611)
LA Optional Particle Count (SAE AS4059)
LA Optional MPC (ISO 4405)
LA Optional pH (ASTM D217)
LA Optional CFPP (ASTM D6371/EN 166)
LA Optional Ruler Test (ASTM D6971)

Optional tests for Panolin

LA Optional FT IR Mineral Oil Content % (In House)
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For other specific test request, please contact your local helpdesk, Shell Technical Advisor or Account Manager.

Shell
LubeAnalyst



Send your sample by DHL to the Shell LubeAnalyst laboratory

1

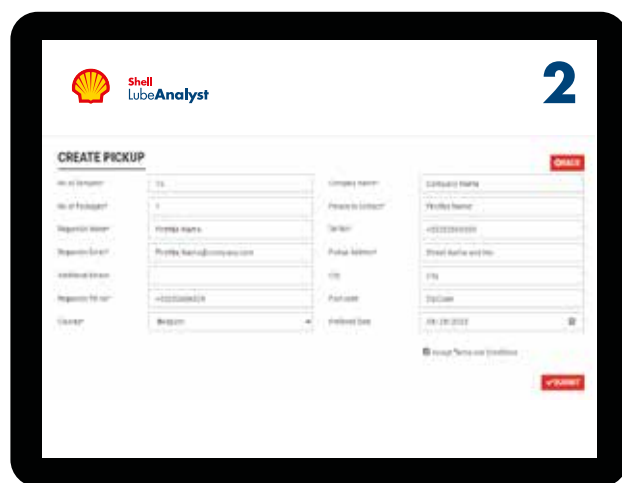
Visit:

www.shell.com/sendyoursample

2

Create pickup: Please complete all fields marked with *:

- The required address is your Company Name and Pickup Address.
- Requestor Name and Person to Contact can be the same.
- Choose a date for the pick-up (at least the day after the request).
- Click on **Submit**.



You will receive an email after 5-10 minutes with the documents you need to print. Place them in the box/envelope with the sample bottles, and attach the shipping label to the outside of the box.

DHL will pick up your samples and deliver them to:

Shell LubeAnalyst Laboratory
ZI Rue Lavoisier
27130 Verneuil sur Avre
France
+33232606500

Early failure-mode detection for a range of industries, tailored to your equipment:



**Detection of
machine wear**



**Oil degradation
and oxidation**



**Oil
cleanliness**



**Contamination
from water or
another lubricant**



**Retention of
oil viscosity**

Recommendations from Shell experts

Identify recurrent issues and review actions based on sampling to optimise your equipment performance

Access to Shell experts can help you to:

- Choose the right test suite
- Set up optimum oil-test scheduling
- Provide coaching and training to optimise your equipment



Speak to your Shell Account Manager about signing up for Shell LubeAnalyst today!

nordic.technicalhelpdesk@univarsolutions.com



If you have any further enquiries,
please contact your local helpdesk,
Shell Technical Advisor or Account Manager.

LubeAnalyst
mobile app
available
for download

