OIL ANALYSIS TESTS

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EQUIPMENT RELIABILITY SERVICES

CATEGORY / LABORATORY TEST	TEST METHOD	VOLUME	TURNAROUND
Viscosity @ 40C	ASTM D445 mod.	100ml	1 day
Viscosity @ 100C	ASTM D445 mod.	100ml	1 day
Viscosity Index (VI)	ASTM D2270	100ml	1 day
Oxidation / Nitration / Sulfation (Engines only)	ASTM D7414 / D7624 / D7415 / E2412 mod.	100ml	1 day
Flash Point (Cleveland Open Cup or Closed Cup)	ASTM D92 mod. (open) ASTM D93 mod. (closed)	100ml / 100ml	3 days / 3 days
Base Number (BN) 3 options	ASTM D2896 mod. / ASTM D4739 mod. / FL Method	30ml / 30ml / 10ml	7 days / 1 day / 1 day
Base Number (BN) 3 options Acid Number (AN) 3 options Acid Number (AN) 3 options Acid Number (ASTM D664) + ipH (Initial pH) Copper Corrosion Test Rust Test	FL Method / ASTM D664 mod. / ASTM D974 mod.	10ml / 30ml / 30ml	1 day / 1 day / 1 day
Acid Number (ASTM D664) + ipH (Initial pH)	ASTM D664 and D7946 mod.	30ml	1 day
Copper Corrosion Test	ASTM D130 mod.	80ml	7 days
Rust Test	ASTM D665 mod.	800ml	7 days
Foam Test (Tendency / Stability)	ASTM D892 mod.	200ml	3 days
Demulsibility	ASTM D1401 mod.	100ml	7 days
RULER Test (Remaining Useful Life – requires new oil reference)	ASTM D6971 mod.	20ml (+ ref oil)	7 days
RPVOT (Oxidation Stability)	ASTM D2272 mod	200ml	7 days
ICP Spectrometry (Additives)	ASTM D5185 mod.	100ml	1 day
Water (Positive / Negative)	Crackle Test	100ml	1 day
% Water (Karl Fischer)	ASTM D6304 mod.	10ml	1 day
z % Soot	ASTM D7844 mod.	100ml	1 day
Fuel Dilution (by Gas Chromatography) Glycol Contamination (Gas Chromatography) Glycol Contamination (in Engine Oil by Chemometric FTIR)	ASTM D7593 mod.	10ml	1 day
Glycol Contamination (Gas Chromatography)	ASTM D7922 mod.	10ml	1 day
Glycol Contamination (in Engine Oil by Chemometric FTIR)	FL Method	10ml	1 day
ISO Particle Count	ISO 4406 / ISO 11500	20ml	1 day
ISO Particle Count w/Optical Particle Classification (OPC)	ASTM D7596 mod.	50ml	1 day
Varnish Potential (Membrane Patch Colorimetry)	ASTM D7843 mod.	100ml	7 days
2 ICP Spectrometry (Wear Debris)	ASTM D5185 mod.	100ml	1 day
Analytical Ferrography Total Magnetic Iron (TMI) Scanning Electron Microscopy (SEM)	ASTM D7690 mod.	10ml	3 days
Total Magnetic Iron (TMI)	FL Method	10nl	1 day
Scanning Electron Microscopy (SEM)	SEM	Call for Info	Call for Info
Air Release Test	ASTM D3427	500ml	7 days
Air Release Test Pentane Insolubles / Toluene Insolubles NOTE: Turnaround cannot be guaranteed on outsourced testing	ASTM D893	50ml	7 days
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