Oil Check Report Key

Here is a list of the different items you will find on your oil reports. You may see all or only some of the items listed below, depending on the type of sample you are looking at. Have a look on our website for more information.

Sample Date	The date the sample was taken.
Sample #	The 7-digit number assigned to your sample by the lab. Quote this number when making an enquiry about your sample.
Unit Usage	The amount of time that the machine has been in use (in hours).
Oil Usage	The amount of time that the current oil has been in use (in hours).
Oil Added	Any oil added to the machine will be shown here (in litres).
Elements	Aluminium (Al), Chromium (Cr), Copper (Cu), Iron (Fe), Lead (Pb), Nickel (Ni), Silver (Ag), Tin (Sn), Boron (B), Silicon (Si), Sodium (Na), Calcium (Ca), Magnesium (Mg), Molybdenum (Mo), Phosphorus (P), Zinc (Zn), Manganese (Mn), Titanium (Ti). Values are given in ppm (parts per million).
FW Idx	Stands for Ferrous Wear Index. It is a measure of the amount of ferrous (magnetic iron-containing) material in your sample. Samples containing a lot of fine ferrous particles or several large ferrous particles will generate a high FW index. Since this number is an index it has no units – it is used for comparative purposes only.
IR Soot	An indication of the oil condition in terms of soot, determined via Infrared spectroscopy. It is expressed in terms of 'percent allowable'.
IR Oxidation	An indication of the oil condition in terms of oxidation, determined via Infrared spectroscopy. It is expressed in terms of 'percent allowable'.
IR Nitration	An indication of the oil condition in terms of nitration, determined via Infrared spectroscopy. It is expressed in terms of 'percent allowable'.
IR Sulphation	(Uses the US spelling 'Sulfation' on the report). An indication of the oil condition in terms of sulphation, determined via Infrared spectroscopy. It is expressed in terms of 'percent allowable'.
Water K. Fish	The water content of the sample, determined by either Karl Fischer moisture titration or hotplate crackle test. The value is normally given as a percentage but may be given in terms of ppm (parts per million) for certain samples.
Visc 40C	Shows the viscosity of the sample at 40°C. The unit is Centistokes (cSt).
PC Vol Total	*Disregard.*
Cnts > *X*	The number of particles found in the sample that were greater than *X* µm (microns) in size.
ISO > 2	The ISO code determined by the number of particles found in the sample that were greater than 2 µm (microns) in size.
ISO > 5	The ISO code determined by the number of particles found in the sample that were greater than 5 µm (microns) in size.
ISO > 15	The ISO code determined by the number of particles found in the sample that were greater than 15 µm (microns) in size.

Fuel Vol — Shows the amount of fuel that was found in the sample, given as a percentage.

Total Acid — Shows the Total Acid Number (TAN) determined for the sample. The unit is mgKOH g^{-1} (milligrams of KOH [Potassium Hydroxide] per gram).

Total Base — Shows the Total Base Number (TBN) determined for the sample. The unit is mgKOH g^{-1} (milligrams of KOH [Potassium Hydroxide] per gram).

Coolant Reports Only

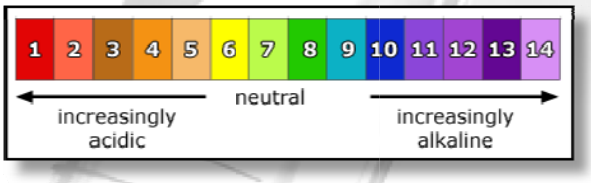
Glycol Vol — Shows the glycol concentration of the sample, given as a percentage.

Solids Vol — Shows the total dissolved solids (TDS) within the sample. The unit is ppm (parts per million).

Nitrite — Shows the nitrite level for the sample. The unit is mg l^{-1} (milligrams per litre).

Freezing Pt — Shows the freezing point of the sample. The unit is degrees Celsius (°C).

pH — Shows the pH of the sample. A pH of 7 is neutral. A pH *less* than 7 shows the sample is acidic, becoming stronger as it gets closer to pH1. A pH *greater* than 7 shows the sample is alkaline, becoming stronger as it gets closer to pH11. There are no units. See the diagram below.



Resistivity — This actually shows the CONDUCTIVITY of the sample (the inverse of resistivity). The unit is µS cm^{-1} (microSiemens per centimetre).

For the following six properties, we quantify them using a number on a scale of zero to three.

	0	1	2	3
Foaming	None	Slight	Moderate	Heavy
Sediment	No	Yes	-	-
Appearance	Clear	Cloudy/hazy	Very Cloudy	Opaque
Color (Visual)	Colourless	Turquoise	Blue	Other
Rust Prevent	No	Yes	-	-
Rust	No	Yes	-	-