

UIN 0605B66

Gasoline Engine

Unit No. 546787

Unit:

Make Landrover

Model Model: LR4

Serial No.

Site

Compartment:

Name Gasoline Engine

Make

Model

Serial No.


Capacity:

Customer:

DIAGNOSIS


All wear rates normal. Abrasive and other contaminant levels are acceptable. Viscosity within specified operating range. Action: As oil and filter(s) already changed, resample next recommended service interval to further monitor.

ANALYST: charles.dillard




Normal


LEGEND




Severe







Abnormal



Caution



Normal

| DATE SAMPLED | 01-Apr-22 | 12-Aug-20 | 30-May-19 | 12-Aug-17 |
|----------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| DATE RECEIVED | 25-Apr-22 | 26-Aug-20 | 27-Jun-19 | 06-Sep-17 |
| DATE REPORTED | 27-Apr-22 | 27-Aug-20 | 01-Jul-19 | 07-Sep-17 |
| LAB NO. | 43021653190 | 43021429797 | 43021288290 | 43021040763 |
| SIF NO. | 33113158 | 33113154 | 32370385 | 14796382 |
| TIME ON UNIT | mi | 131000 | 125000 | 121000 |
| TIME ON OIL | mi | 6000 | 4000 | 7000 |
| OIL BRAND | Red Line | Red Line | Castrol | Castrol |
| OIL TYPE | Motor Oil | Motor Oil | Unidentified | Unidentified |
| OIL GRADE | SAE 5W20 | SAE 5W20 | SAE 5W20 | SAE 5W20 |
| OIL ADDED | | | | |
| FILTER | 6000 | 4000 | 7000 | |
| OIL CHANGED | Changed | Changed | Changed | Changed |
| WO NUMBER | | | | |
| Metals (ppm) | | | | |
| Iron (Fe) | 13 | 8 | 19 | 55 |
| Chromium (Cr) | <1 | <1 | <1 | 1 |
| Lead (Pb) | <1 | <1 | <1 | <1 |
| Copper (Cu) | 2 | 1 | 1 | 1 |
| Tin (Sn) | <1 | <1 | <1 | <1 |
| Aluminium (Al) | 3 | 2 | 4 | 7 |
| Nickel (Ni) | <1 | <1 | <1 | <1 |
| Silver (Ag) | <1 | <1 | <1 | <1 |
| Titanium (Ti) | <1 | <1 | <1 | 1 |
| Vanadium (V) | <1 | <1 | <1 | <1 |
| Contaminants (ppm) | | | | |
| Silicon (Si) | 6 | 6 | 4 | 7 |
| Sodium (Na) | 19 | 14 | 14 | 33 |
| Potassium (K) | <1 | 4 | 1 | <1 |
| Additives (ppm) | | | | |
| Magnesium (Mg) | 532 | 17 | 28 | 23 |
| Calcium (Ca) | 2906 | 3344 | 3432 | 3234 |
| Barium (Ba) | <1 | <1 | <1 | <1 |
| Phosphorus (P) | 1102 | 1016 | 750 | 801 |
| Zinc (Zn) | 1251 | 1133 | 865 | 929 |
| Molybdenum (Mo) | 522 | 548 | 119 | 102 |
| Boron (B) | 78 | 51 | 22 | 24 |
| Contaminants | | | | |
| Water (%) | <0.05 | <0.05 | <0.05 | <0.05 |
| Coolant | No | No | No | No |
| Physical Tests | | | | |
| Viscosity (cSt 100C) | 9.3 | 9.0 | 9.2 | 9.9 |
| Physical / Chemical | | | | |
| Base Number (mgKOH/g) | 3.0 | 3.3 | 2.2 | 2.4 |
| |  |  |  |  |

UIN 0605B66

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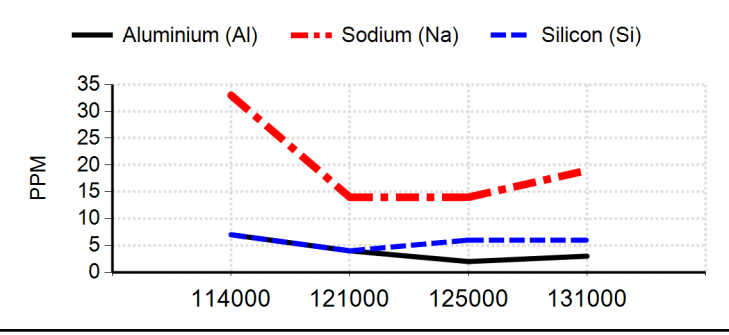
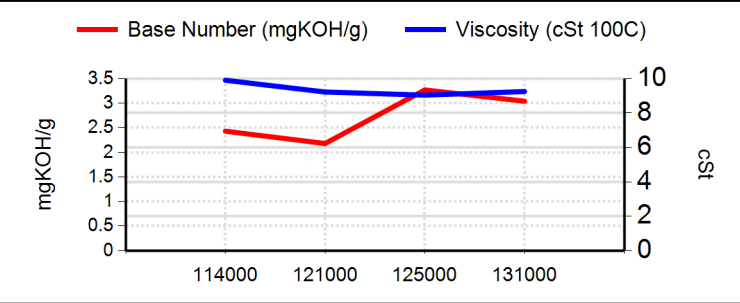
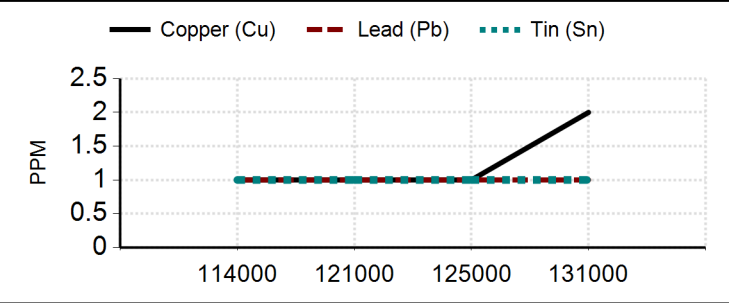
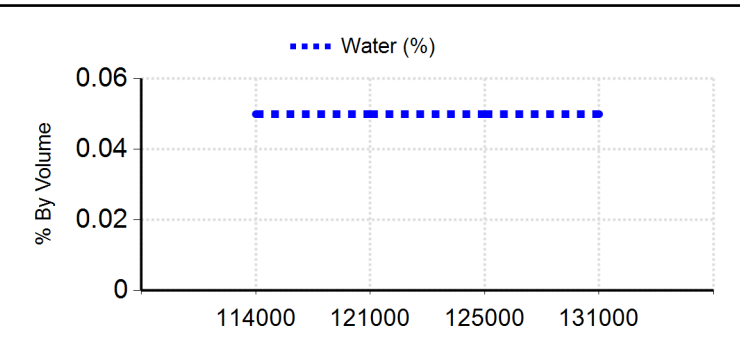
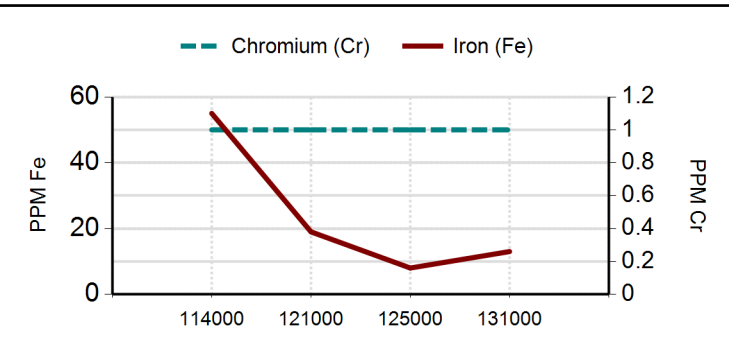
Europe

Prague

TEST METHODS:

| | |
|------------------------------|---------------------------------|
| Acid Number: | ASTM D974/D664 (*M) |
| Base Number: | ASTM D4739 (*M) |
| Base Number (Perchloric): | ASTM D2896 (*M) |
| Fuel Dilution by GC: | ASTM D7593 |
| Fuel Dilution Visc/Setaflash | In House |
| Fuel Soot ATR/IR: | ASTM D7686 (*M) |
| Soot by FTIR: | ASTM D7844 |
| Glycol: | In House |
| Metals by ICP AES: | ASTM D5185 (*M) |
| Ox, NOx, SOx, FTIR: | ASTM E2412/D7418/D7414 D7415 |
| PQ Index: | ASTM D8120 (*M) |
| Particle Count: | ASTM D7647 (*M) / ISO 4406 |
| Viscosity: | ASTM D445 (*M) / D7279 (*M) |
| Water KF: | D6304 / E203 (*M) |
| Water Crackle: | In House |

*M - Modified Method



Filter
Image

Filter patch test is not
performed Contact laboratory
for more information

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