

Machine Id FREIGHTLINER CASCADIA 1235 Component Diesel Engine

| MOBIL 15W40 (GAL) | | | | | | | |
|---|------------------|------------|-------------|-----------|-------------|-------------|----------|
| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
| Resample at the next service interval to monitor. | Sample Number | | Client Info | | WC0909283 | WC0878843 | |
| | Sample Date | | Client Info | | 30 Apr 2024 | 09 Jan 2024 | |
| | Machine Age | mls | Client Info | | 108218 | 90788 | |
| | Oil Age | mls | Client Info | | 0 | 0 | |
| | Filter Age | mls | Client Info | | 0 | 0 | |
| | Oil Changed | | Client Info | | Changed | Changed | |
| | Filter Changed | | Client Info | | Changed | Changed | |
| | Sample Status | | | | NORMAL | NORMAL | |
| WEAR | Iron | ppm | ASTM D5185m | >80 | 7 | 14 | |
| | Chromium | ppm | ASTM D5185m | >5 | <1 | 1 | |
| All component wear rates are normal. | Nickel | ppm | ASTM D5185m | >2 | 0 | 0 | |
| | Titanium | ppm | ASTM D5185m | | 0 | <1 | |
| | Silver | ppm | ASTM D5185m | >3 | 0 | 0 | |
| | Aluminum | ppm | ASTM D5185m | >30 | 3 | 3 | |
| | Lead | ppm | ASTM D5185m | >30 | 0 | 0 | |
| | Copper | ppm | ASTM D5185m | >150 | <1 | 1 | |
| | Tin | ppm | ASTM D5185m | >5 | 0 | <1 | |
| | Vanadium | ppm | ASTM D5185m | | 0 | <1 | |
| | White Metal | scalar | *Visual | NONE | NONE | NONE | |
| | Yellow Metal | scalar | *Visual | NONE | NONE | NONE | |
| CONTAMINATION | Silicon | nom | ASTM D5185m | > 20 | <1 | 4 | |
| CONTAMINATION | Potassium | ppm | ASTM D5185m | | 6 | 6 | |
| There is no indication of any contamination in the oil. | Fuel | ppm | WC Method | | <1.0 | <1.0 | |
| | Water | | WC Method | | NEG | NEG | |
| | Glycol | | WC Method | 20.2 | NEG | NEG | |
| | Soot % | % | *ASTM D7844 | >3 | 0.5 | 0.5 | |
| | Nitration | Abs/cm | *ASTM D7624 | >20 | 7.8 | 7.9 | |
| | Sulfation | Abs/.1mm | *ASTM D7415 | | 19.3 | 19.4 | |
| | Silt | scalar | *Visual | NONE | NONE | NONE | |
| | Debris | scalar | *Visual | NONE | NONE | NONE | |
| | Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | |
| | Appearance | scalar | *Visual | NORML | NORML | NORML | |
| | Odor | scalar | *Visual | NORML | NORML | NORML | |
| | Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG | |
| FLUID CONDITION | Sodium | | ASTM D5185m | <11Q | 2 | 1 | |
| FLUID CONDITION | Boron | ppm | ASTM D5185m | >110 | 0 | 2 | |
| The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. | Barium | ppm | ASTM D5185m | | 0 | 0 | |
| | Molybdenum | ppm ppm | ASTM D5185m | | 59 | 56 | |
| | Manganese | ppm | ASTM D5185m | | | <1 | |
| | Magnesium | ppm | ASTM D5185m | | 958 | 999 | |
| | Calcium | ppm | ASTM D5185m | | 1165 | 1070 | |
| | Phosphorus | ppm | ASTM D5185m | | 1056 | 1016 | |
| | Zinc | ppm | ASTM D5185m | | 1252 | 1209 | |
| | 0.16 | 77 | | | | 0000 | |

Sulfur

Oxidation

Visc @ 100°C cSt

ppm ASTM D5185m

Base Number (BN) mg KOH/g ASTM D2896

Abs/.1mm *ASTM D7414 >25

ASTM D445

2868

15.3

8.6

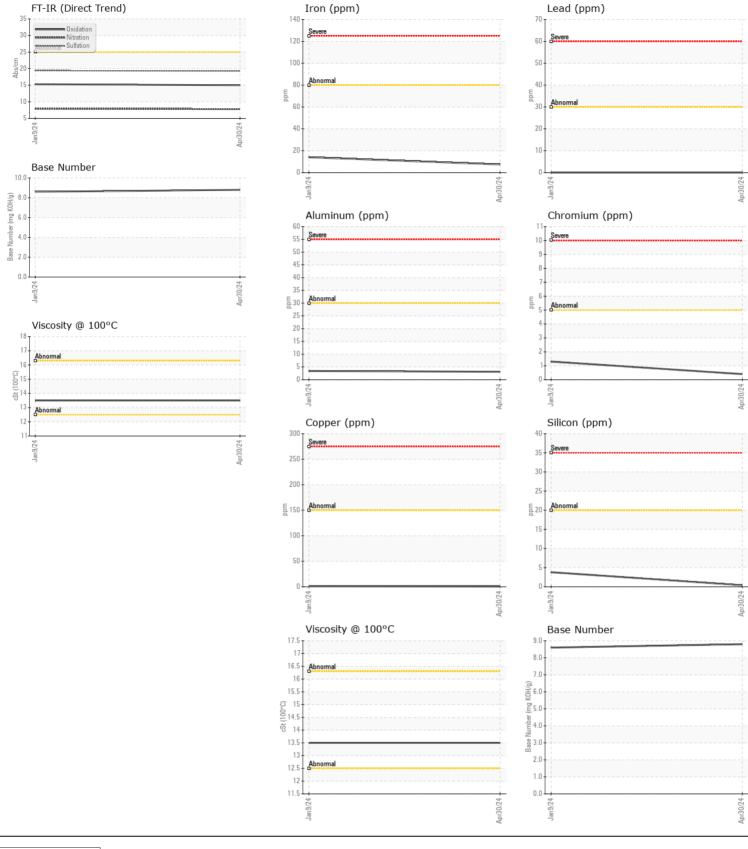
13.5

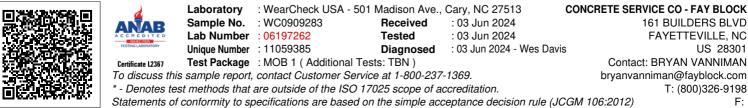
3413

15.0

8.8

13.5





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Contact/Location: BRYAN VANNIMAN - CONFAY Page 2 of 2