

NORMAL WEAR CONTAMINATION NORMAL FLUID CONDITION NORMAL

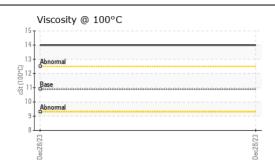
Machine Id **OR807**

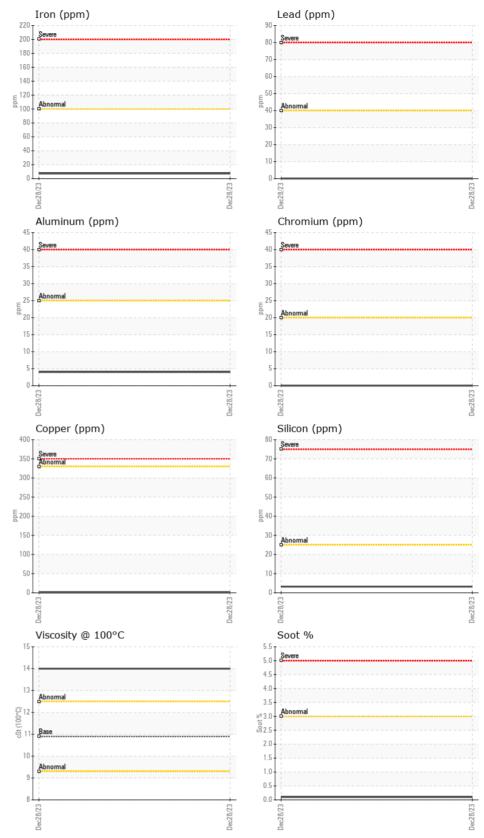
Component Diesel Engine

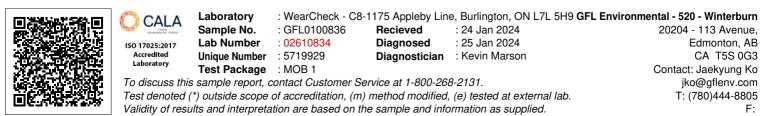
DIESEL ENGINE OIL SAE 10W30 (--- GAL)

| | | | | | ~~~~~ | | |
|---|------------------|----------|---------------|-----------|-------------|----------|----------|
| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
| Resample at the next service interval to monitor. | Sample Number | | Client Info | | GFL0100836 | | |
| | Sample Date | | Client Info | | 28 Dec 2023 | | |
| | Machine Age | hrs | Client Info | | 16621 | | |
| | Oil Age | hrs | Client Info | | 0 | | |
| | Filter Age | hrs | Client Info | | 0 | | |
| | Oil Changed | | Client Info | | Changed | | |
| | Filter Changed | | Client Info | | Changed | | |
| | Sample Status | | | | NORMAL | | |
| | | | | | _ | | |
| WEAR All component wear rates are normal. | Iron | ppm | ASTM D5185(m) | | 7 | | |
| | Chromium | ppm | ASTM D5185(m) | | 0 | | |
| | Nickel | ppm | ASTM D5185(m) | | 0 | | |
| | Titanium | ppm | ASTM D5185(m) | | 0 | | |
| | Silver | ppm | ASTM D5185(m) | | 0 | | |
| | Aluminum | ppm | ASTM D5185(m) | | 4 | | |
| | Lead | ppm | ASTM D5185(m) | | 0 | | |
| | Copper | ppm | ASTM D5185(m) | | <1 | | |
| | Tin | ppm | ASTM D5185(m) | >15 | 0 | | |
| | Vanadium | ppm | ASTM D5185(m) | | 0 | | |
| CONTAMINATION | Silicon | ppm | ASTM D5185(m) | >25 | 3 | | |
| There is no indication of any contamination in the oil. | Potassium | ppm | ASTM D5185(m) | >20 | <1 | | |
| | Fuel | | WC Method | >5 | <1.0 | | |
| | Water | | WC Method | >0.2 | NEG | | |
| | Glycol | | WC Method | | NEG | | |
| | Soot % | % | ASTM D7844* | >3 | 0.1 | | |
| | Nitration | Abs/cm | ASTM D7624* | >20 | 7.7 | | |
| | Sulfation | Abs/.1mm | ASTM D7415* | >30 | 16.7 | | |
| | Emulsified Water | scalar | Visual* | >0.2 | NEG | | |
| FLUID CONDITION | Sodium | ppm | ASTM D5185(m) | | <1 | | |
| Viscosity of sample indicates oil is within SAE 40 range, advise investigate. The condition of the oil is acceptable for the time in service. | Boron | ppm | ASTM D5185(m) | 250 | 8 | | |
| | Barium | ppm | ASTM D5185(m) | 10 | 0 | | |
| | Molybdenum | ppm | ASTM D5185(m) | | 0 | | |
| | Manganese | ppm | ASTM D5185(m) | | 0 | | |
| | Magnesium | ppm | ASTM D5185(m) | 450 | 61 | | |
| | Calcium | ppm | ASTM D5185(m) | 3000 | 2130 | | |
| | Phosphorus | ppm | ASTM D5185(m) | | 921 | | |
| | Zinc | ppm | ASTM D5185(m) | | 1032 | | |
| | Sulfur | ppm | ASTM D5185(m) | | 3279 | | |
| | | | | | | | |
| | Oxidation | Abs/.1mm | ASTM D7414* | >25 | 13.8 | | |

Contact/Location: Jaekyung Ko - GFL520







Contact/Location: Jaekyung Ko - GFL520 Page 2 of 2