

Machine Id **370-2** Component **Diesel Engine** Filuid **DIESEL ENGINE OIL SAE 15W40 (45 LTR)**

| RECOMMENDATION |
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Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

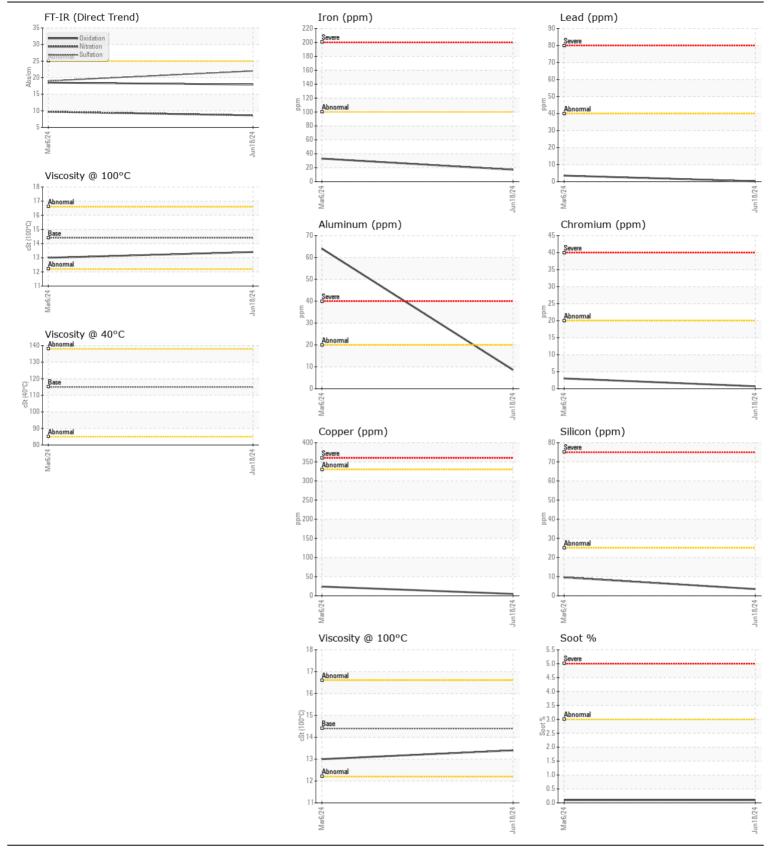
Elevated aluminum (AI) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------------|----------|---------------------------|-----------|-------------|-------------|----------|
| Sample Number | | Client Info | | WC0935808 | WC0890786 | |
| Sample Date | | Client Info | | 18 Jun 2024 | 06 Mar 2024 | |
| Machine Age | hrs | Client Info | | 0 | 490 | |
| Oil Age | hrs | Client Info | | 0 | 490 | |
| Filter Age | hrs | Client Info | | 0 | 490 | |
| Oil Changed | | Client Info | | N/A | Not Changd | |
| Filter Changed | | Client Info | | N/A | Not Changd | |
| Sample Status | | | | NORMAL | ABNORMAL | |
| | | | | | | |
| Iron | ppm | ASTM D5185(m) | >100 | 17 | 33 | |
| Chromium | ppm | ASTM D5185(m) | >20 | <1 | 3 | |
| Nickel | ppm | ASTM D5185(m) | >4 | <1 | <1 | |
| Titanium | ppm | ASTM D5185(m) | | <1 | 0 | |
| Silver | ppm | ASTM D5185(m) | >3 | <1 | 1 | |
| Aluminum | ppm | ASTM D5185(m) | >20 | 9 | <u> </u> | |
| Lead | ppm | ASTM D5185(m) | >40 | <1 | 4 | |
| Copper | ppm | ASTM D5185(m) | >330 | 5 | 24 | |
| Tin | ppm | ASTM D5185(m) | >15 | 1 | 3 | |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | |
| Silicon | nnm | ASTM D5185(m) | >25 | 4 | 10 | |
| Potassium | ppm | ASTM D5185(m) | >20 | 16 | 14 | |
| Fuel | ppm | WC Method | >5 | <1.0 | <1.0 | |
| Water | | WC Method | >0.2 | NEG | NEG | |
| Glycol | | WC Method | 20.2 | NEG | 0.0 | |
| Soot % | % | ASTM D7844* | >3 | 0.1 | | |
| Nitration | | ASTM D7644 ASTM D7624* | | 8.6 | 0.1 9.7 | |
| | Abs/cm | | >20 | | | |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 22.0 | 19.0 | |
| Emulsified Water | scalar | Visual* | >0.2 | NEG | NEG | |
| Sodium | ppm | ASTM D5185(m) | >158 | 2 | 3 | |
| Boron | ppm | ASTM D5185(m) | 250 | 91 | 80 | |
| Barium | ppm | ASTM D5185(m) | 10 | <1 | 13 | |
| Molybdenum | ppm | ASTM D5185(m) | 100 | 1 | 43 | |
| Manganese | ppm | ASTM D5185(m) | | <1 | 2 | |
| Magnesium | ppm | ASTM D5185(m) | 450 | 32 | 943 | |
| Calcium | ppm | ASTM D5185(m) | 3000 | 2278 | 1229 | |
| Phosphorus | ppm | ASTM D5185(m) | 1150 | 941 | 723 | |
| Zinc | ppm | ASTM D5185(m) | 1350 | 1177 | 865 | |
| Sulfur | ppm | ASTM D5185(m) | 4250 | 2859 | 2520 | |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 17.9 | 18.5 | |
| Visc @ 40°C | cSt | ASTM D7279(m) | 115 | 102 | | |
| Visc @ 100°C | cSt | ASTM D7279(m) | 14.4 | 13.4 | 13.0 | |
| Viscosity Index (VI) | Scale | ASTM D2270* | 126 | 130 | | |
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Contact/Location: CG Equipment CG Guelph - CGEGUE



C.G. EQUIPMENT Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CALA Sample No. Received : 21 Jun 2024 7367 Wellington Rd. 30, Unit A : WC0935808 Lab Number : 02643347 Tested : 21 Jun 2024 Guelph, ON ISO 17025:2017 Accredited Laboratory : 21 Jun 2024 - Wes Davis CA NOM 2T0 Unique Number : 5800886 Diagnosed Test Package : MOB 1 (Additional Tests: KV40, VI) Contact: CG Equipment CG Guelph To discuss this sample report, contact Customer Service at 1-800-268-2131. cory@cgequipment.com T: (519)826-0550 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. F: (519)837-2055 Validity of results and interpretation are based on the sample and information as supplied.