

GFL515 Machine Id

125072

Diesel Engine

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

| RF | COM | IMEN | IDAT | ION |
|----|-----|------|------|-----|
| | | | | |

Resample at the next service interval to monitor.

WEAR

Metal levels are typical for a new component breaking in.

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 | | GFL0116393 | | |
| Sample Date | | Client Info | | 03 Jun 2024 | | |
| Machine Age | kms | Client Info | | 116084 | | |
| Oil Age | kms | Client Info | | 0 | | |
| Filter Age | kms | Client Info | | 0 | | |
| Oil Changed | | Client Info | | Changed | | |
| Filter Changed | | Client Info | | Changed | | |
| Sample Status | | | | NORMAL | | |
| | | | | | | |
| Iron | ppm | ASTM D5185(m) | >90 | 31 | | |
| Chromium | ppm | ASTM D5185(m) | >20 | <1 | | |
| Nickel | ppm | ASTM D5185(m) | >2 | 0 | | |
| Titanium | ppm | ASTM D5185(m) | >2 | 0 | | |
| Silver | ppm | ASTM D5185(m) | >2 | 0 | | |
| Aluminum | ppm | ASTM D5185(m) | >20 | 17 | | |
| Lead | ppm | ASTM D5185(m) | >40 | 8 | | |
| Copper | ppm | ASTM D5185(m) | >330 | 2 | | |
| Tin | ppm | ASTM D5185(m) | >15 | 0 | | |
| Vanadium | ppm | ASTM D5185(m) | | 0 | | |
| Silicon | ppm | ASTM D5185(m) | >25 | 2 | | |
| Potassium | ppm | ASTM D5185(m) | >20 | 41 | | |
| Fuel | | WC Method | >3.0 | <1.0 | | |
| i uei | | WO WELLIOU | 20.0 | <1.0 | | |
| Water | | WC Method | >0.2 | NEG | | |
| | | | | | | |
| Water | % | WC Method | | NEG | | |
| Water Glycol | % Abs/cm | WC Method WC Method | >0.2 | NEG NEG | | |
| Water Glycol Soot % | | WC Method WC Method ASTM D7844* | >0.2 >6 | NEG NEG 0.4 | | |
| Water Glycol Soot % Nitration | Abs/cm | WC Method WC Method ASTM D7844* ASTM D7624* | >0.2 >6 >20 | NEG NEG 0.4 10.9 | | |
| Water Glycol Soot % Nitration Sulfation Emulsified Water | Abs/cm Abs/.1mm scalar | WC Method WC Method ASTM D7844* ASTM D7624* ASTM D7415* Visual* | >0.2 >6 >20 >30 | NEG NEG 0.4 10.9 22.7 NEG | | |
| Water Glycol Soot % Nitration Sulfation Emulsified Water Sodium | Abs/cm Abs/.1mm scalar ppm | WC Method WC Method ASTM D7844* ASTM D7624* ASTM D7415* Visual* ASTM D5185(m) | >0.2 >6 >20 >30 >0.2 | NEG NEG 0.4 10.9 22.7 NEG 4 | | |
| Water Glycol Soot % Nitration Sulfation Emulsified Water Sodium Boron | Abs/cm Abs/.1mm scalar ppm ppm | WC Method WC Method ASTM D7844* ASTM D7624* ASTM D7415* Visual* ASTM D5185(m) ASTM D5185(m) | >0.2 >6 >20 >30 >0.2 250 | NEG NEG 0.4 10.9 22.7 NEG 4 2 | | |
| Water Glycol Soot % Nitration Sulfation Emulsified Water Sodium Boron Barium | Abs/cm Abs/.1mm scalar ppm ppm ppm | WC Method WC Method ASTM D7844* ASTM D7624* ASTM D7415* Visual* ASTM D5185(m) ASTM D5185(m) | >0.2 >6 >20 >30 >0.2 250 10 | NEG NEG 0.4 10.9 22.7 NEG 4 2 0 | | |
| Water Glycol Soot % Nitration Sulfation Emulsified Water Sodium Boron Barium Molybdenum | Abs/cm Abs/.1mm scalar ppm ppm ppm ppm | WC Method WC Method ASTM D7844* ASTM D7624* ASTM D7415* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | >0.2 >6 >20 >30 >0.2 250 | NEG NEG 0.4 10.9 22.7 NEG 4 2 0 65 | | |
| Water Glycol Soot % Nitration Sulfation Emulsified Water Sodium Boron Barium Molybdenum Manganese | Abs/cm Abs/.1mm scalar ppm ppm ppm ppm | WC Method WC Method ASTM D7844* ASTM D7624* ASTM D7415* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | >0.2 >6 >20 >30 >0.2 250 10 100 | NEG NEG 0.4 10.9 22.7 NEG 4 2 0 65 <1 | | |
| Water Glycol Soot % Nitration Sulfation Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium | Abs/cm Abs/.1mm scalar ppm ppm ppm ppm ppm | WC Method WC Method ASTM D7844* ASTM D7624* ASTM D7415* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | >0.2 >6 >20 >30 >0.2 250 10 100 450 | NEG NEG 0.4 10.9 22.7 NEG 4 2 0 65 <1 1060 | | |
| Water Glycol Soot % Nitration Sulfation Emulsified Water Sodium Boron Barium Barium Molybdenum Manganese Magnesium | Abs/cm Abs/.1mm scalar ppm ppm ppm ppm ppm ppm | WC Method WC Method ASTM D7844* ASTM D7624* ASTM D7415* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | >0.2 >6 >20 >30 >0.2 250 10 100 100 450 3000 | NEG NEG 0.4 10.9 22.7 NEG 4 2 0 65 <1 1060 1167 | | |
| Water Glycol Soot % Nitration Sulfation Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium Calcium | Abs/cm Abs/.1mm scalar ppm ppm ppm ppm ppm ppm | WC Method WC Method ASTM D7844* ASTM D7624* ASTM D7415* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | >0.2 >6 >20 >30 >0.2 250 10 100 450 3000 1150 | NEG NEG 0.4 10.9 22.7 NEG 4 2 0 65 <1 1060 1167 1082 | | |
| Water Glycol Soot % Nitration Sulfation Emulsified Water Sodium Boron Barium Barium Malybdenum Manganese Magnesium Calcium Phosphorus Zinc | Abs/cm Abs/.1mm scalar ppm ppm ppm ppm ppm ppm ppm ppm | WC Method WC Method ASTM D7844* ASTM D7624* ASTM D7415* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | >0.2 >20 >30 >0.2 250 10 100 450 3000 1150 1350 | NEG NEG 0.4 10.9 22.7 NEG 4 2 0 65 <1 1060 1167 1082 1295 | | |
| Water Glycol Soot % Nitration Sulfation Emulsified Water Sodium Boron Barium Barium Malybdenum Manganese Magnesium Calcium | Abs/cm Abs/.1mm scalar ppm ppm ppm ppm ppm ppm | WC Method WC Method ASTM D7844* ASTM D7624* ASTM D7415* Visual* ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) | >0.2 >6 >20 >30 >0.2 250 10 100 450 3000 1150 | NEG NEG 0.4 10.9 22.7 NEG 4 2 0 65 <1 1060 1167 1082 | | |

Visc @ 100°C cSt

ASTM D7279(m) 10.9

FLUID CONDITION NORMAL

CONTAMINATION

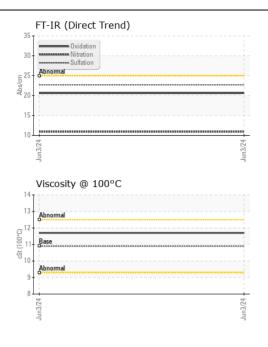
WEAR

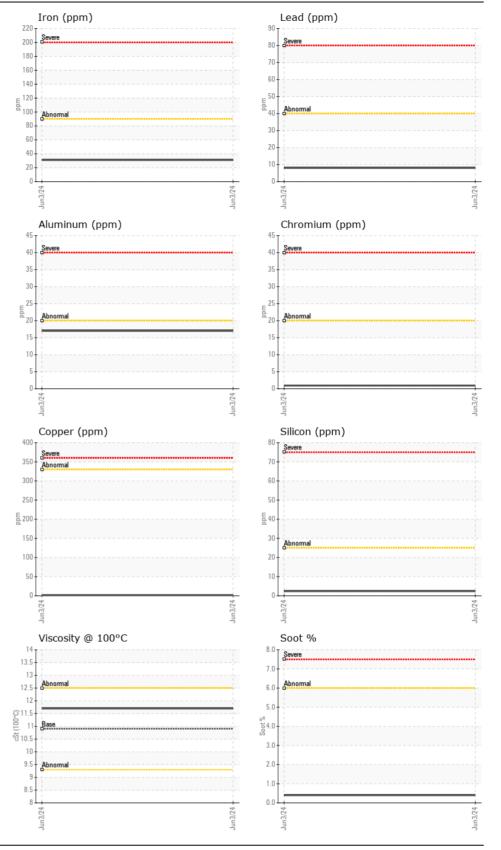
NORMAL

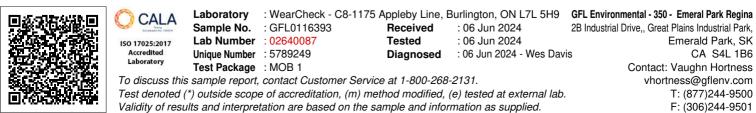
NORMAL

Contact/Location: Vaughn Hortness - GFL350

11.7







Contact/Location: Vaughn Hortness - GFL350 Page 2 of 2