



| | |
|-----------------|---------------|
| WEAR | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION | NORMAL |



Machine Id
401175
Component
Diesel Engine
Fluid
CASTROL TECTION EXTRA SAE 15W-40 (42 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | GFL0094446 | GFL0086780 | GFL0094425 |
| Sample Date | | Client Info | | 05 Apr 2024 | 21 Feb 2024 | 17 Nov 2023 |
| Machine Age | hrs | Client Info | | 12954 | 12594 | 7595 |
| Oil Age | hrs | Client Info | | 600 | 12594 | 7595 |
| Filter Age | hrs | Client Info | | 600 | 12594 | 7595 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|----------|-----|---------------|------|--------------|----|----|
| Iron | ppm | ASTM D5185(m) | >120 | 3 | 6 | 3 |
| Chromium | ppm | ASTM D5185(m) | >20 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) | >5 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185(m) | >2 | <1 | <1 | 0 |
| Silver | ppm | ASTM D5185(m) | >2 | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185(m) | >20 | 3 | 4 | 4 |
| Lead | ppm | ASTM D5185(m) | >40 | 0 | <1 | <1 |
| Copper | ppm | ASTM D5185(m) | >330 | <1 | <1 | <1 |
| Tin | ppm | ASTM D5185(m) | >15 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |

CONTAMINATION

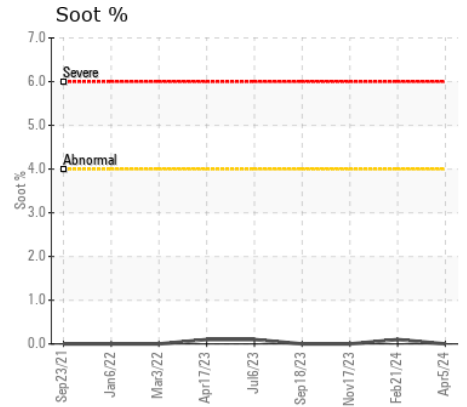
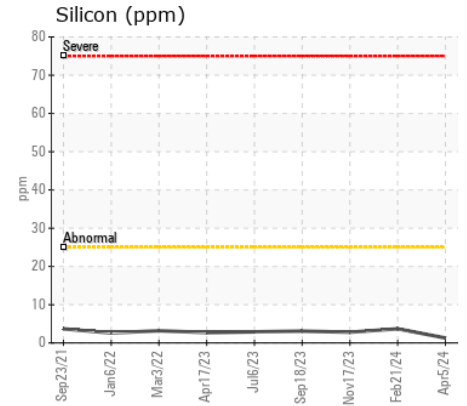
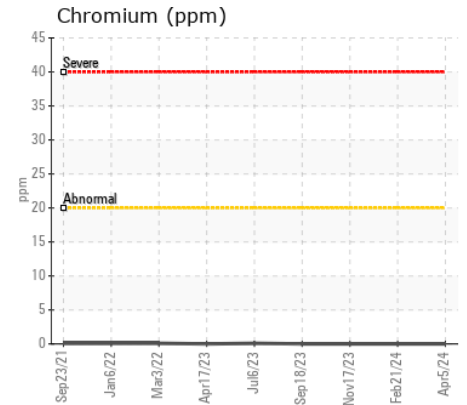
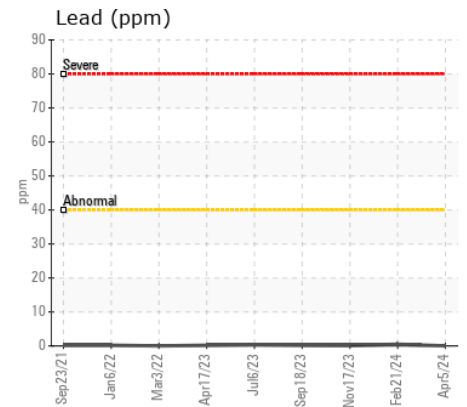
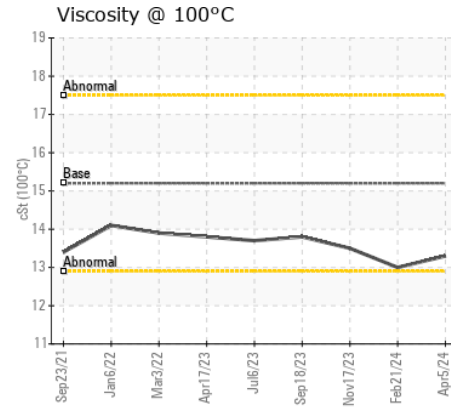
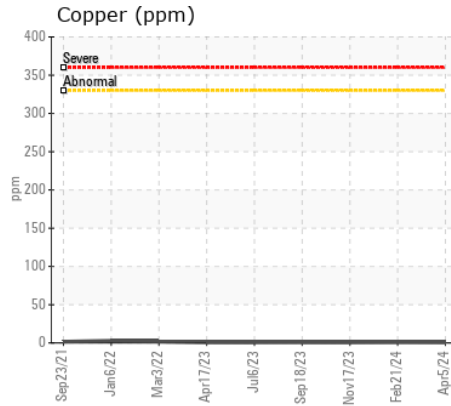
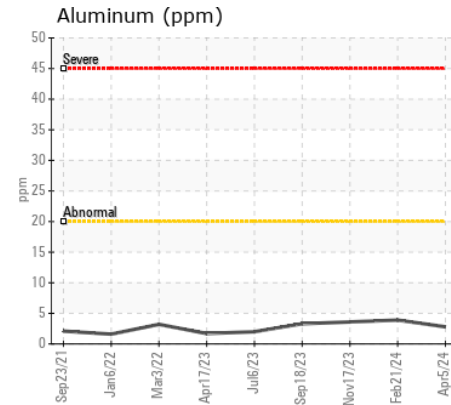
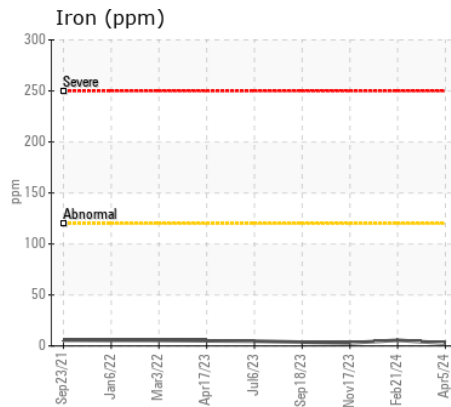
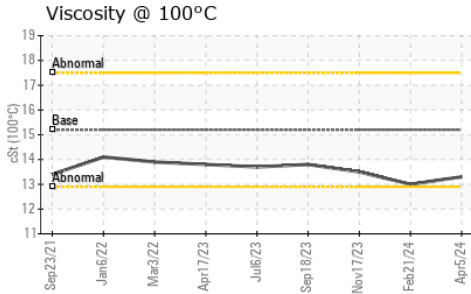
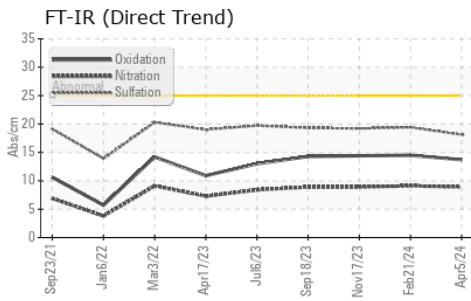
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|---------------|------|----------------|------|------|
| Silicon | ppm | ASTM D5185(m) | >25 | 1 | 4 | 3 |
| Potassium | ppm | ASTM D5185(m) | >20 | 1 | 2 | <1 |
| Fuel | | WC Method | >3.0 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | ASTM D7844* | >4 | 0 | 0.1 | 0 |
| Nitration | Abs/cm | ASTM D7624* | >20 | 8.9 | 9.1 | 8.9 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 18.1 | 19.4 | 19.2 |
| Emulsified Water | scalar | Visual* | >0.2 | NEG | NEG | NEG |

FLUID CONDITION

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

| | | | | | | |
|--------------|----------|---------------|------|-------------|------|------|
| Sodium | ppm | ASTM D5185(m) | | 2 | 3 | 3 |
| Boron | ppm | ASTM D5185(m) | 30 | 56 | 36 | 39 |
| Barium | ppm | ASTM D5185(m) | | 0 | 0 | <1 |
| Molybdenum | ppm | ASTM D5185(m) | | 88 | 82 | 86 |
| Manganese | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) | 110 | 101 | 180 | 58 |
| Calcium | ppm | ASTM D5185(m) | 2740 | 2020 | 1952 | 2131 |
| Phosphorus | ppm | ASTM D5185(m) | 1240 | 981 | 952 | 973 |
| Zinc | ppm | ASTM D5185(m) | 1350 | 1148 | 1112 | 1138 |
| Sulfur | ppm | ASTM D5185(m) | 3520 | 3058 | 3012 | 2976 |
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | 13.7 | 14.5 | 14.4 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 15.2 | 13.3 | 13.0 | 13.5 |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0094446
Lab Number : 02627229
Unique Number : 5760361
Test Package : MOB 1

Received : 08 Apr 2024
Tested : 08 Apr 2024
Diagnosed : 08 Apr 2024 - Wes Davis

GFL Environmental - 222 - Sandhill
 SANDHILL DISPOSAL & RECYCLING DIVIS, 19 COMMERCE ROAD
 ORANGEVILLE, ON
 CA L9W 3X5
 Contact: GLENN COOK
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 T: (519)940-4167
 F:

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.