



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



Machine Id
920018-192568
Component
Diesel Engine
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (--- LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | GFL0103463 | GFL0103458 | GFL0103452 |
| Sample Date | | Client Info | | 08 Apr 2024 | 13 Mar 2024 | 22 Feb 2024 |
| Machine Age | hrs | Client Info | | 9143 | 9036 | 8914 |
| Oil Age | hrs | Client Info | | 511 | 404 | 282 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Changed | N/A | N/A |
| Filter Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >120 | 22 | 18 | 12 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | <1 | 0 |
| Nickel | ppm | ASTM D5185m | >5 | <1 | <1 | <1 |
| Titanium | ppm | ASTM D5185m | >2 | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 6 | 5 | 4 |
| Lead | ppm | ASTM D5185m | >40 | 1 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >330 | 2 | 1 | 3 |
| Tin | ppm | ASTM D5185m | >15 | <1 | 0 | 1 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

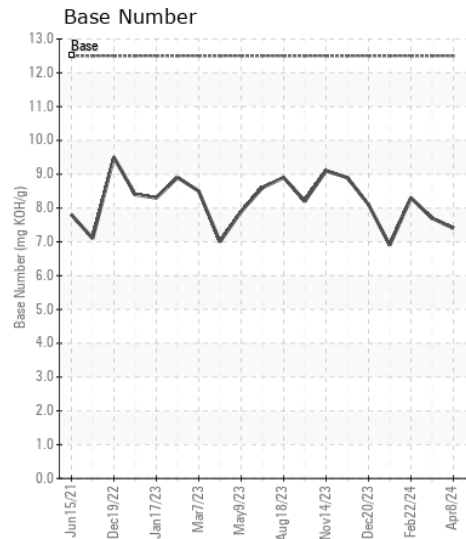
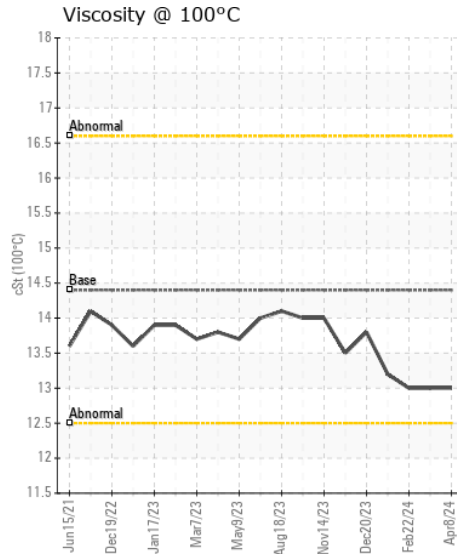
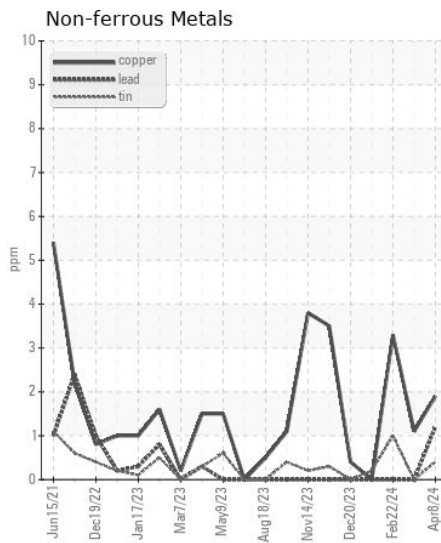
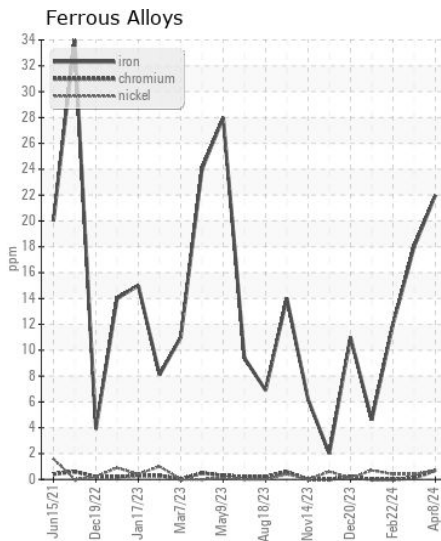
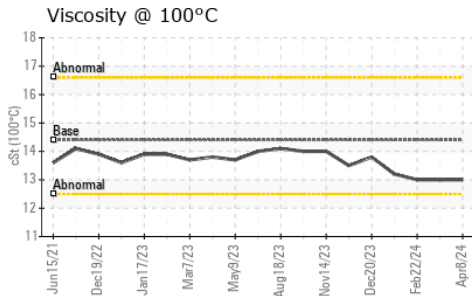
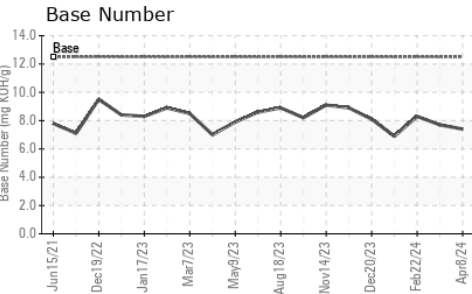
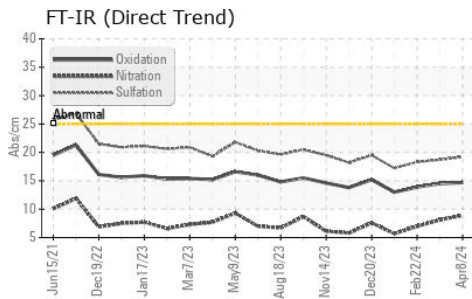
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 8 | 8 | 6 |
| Potassium | ppm | ASTM D5185m | >20 | 3 | 1 | 0 |
| 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 | 0.6 | 0.5 | 0.3 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 8.9 | 8.1 | 7.0 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 19.2 | 18.7 | 18.3 |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG | NEG |

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185m | | 6 | 5 | 5 |
| Boron | ppm | ASTM D5185m | 151 | 20 | 20 | 32 |
| Barium | ppm | ASTM D5185m | 0.4 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 250 | 81 | 74 | 75 |
| Manganese | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | 0 | 1002 | 947 | 927 |
| Calcium | ppm | ASTM D5185m | 2046 | 1320 | 1245 | 1190 |
| Phosphorus | ppm | ASTM D5185m | 1043 | 1077 | 1067 | 1024 |
| Zinc | ppm | ASTM D5185m | 943 | 1386 | 1264 | 1185 |
| Sulfur | ppm | ASTM D5185m | 5012 | 3778 | 3775 | 3113 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 14.7 | 14.5 | 13.9 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 12.5 | 7.4 | 7.7 | 8.3 |
| Visc @ 100°C | cSt | ASTM D445 | 14.4 | 13.0 | 13.0 | 13.0 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0103463
Lab Number : 06145722
Unique Number : 10970530
Test Package : FLEET
Received : 11 Apr 2024
Tested : 12 Apr 2024
Diagnosed : 14 Apr 2024 - Don Baldrige

GFL Environmental - 180 - Tuscaloosa Hauling
 4701 12TH ST NE
 Tuscaloosa, AL
 US 35404
 Contact: FREDERICK ROGERS
 fred.rogers@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)