



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

Area

[GFL152]

Machine Id

812025

Component

Diesel Engine

Fluid

PETRO CANADA DURON SHP 15W40 (8 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | GFL0106040 | GFL0106017 | GFL0106105 |
| Sample Date | | Client Info | | 13 Jun 2024 | 16 May 2024 | 22 Jan 2024 |
| Machine Age | hrs | Client Info | | 6648 | 6648 | 5777 |
| Oil Age | hrs | Client Info | | 600 | 0 | 600 |
| Filter Age | hrs | Client Info | | 600 | 0 | 600 |
| Oil Changed | | Client Info | | Changed | Not Changd | Changed |
| Filter Changed | | Client Info | | Changed | Not Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >110 | 5 | 6 | 6 |
| Chromium | ppm | ASTM D5185m | >4 | 0 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Silver | ppm | ASTM D5185m | >2 | 0 | <1 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 2 | 2 | 1 |
| Lead | ppm | ASTM D5185m | >45 | 0 | <1 | <1 |
| Copper | ppm | ASTM D5185m | >85 | <1 | <1 | 1 |
| Tin | ppm | ASTM D5185m | >4 | 0 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | <1 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

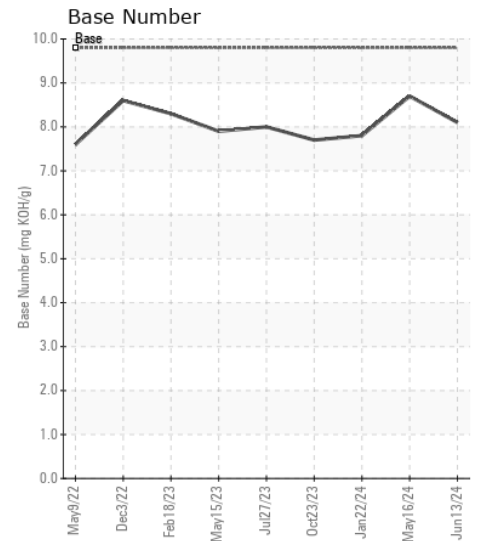
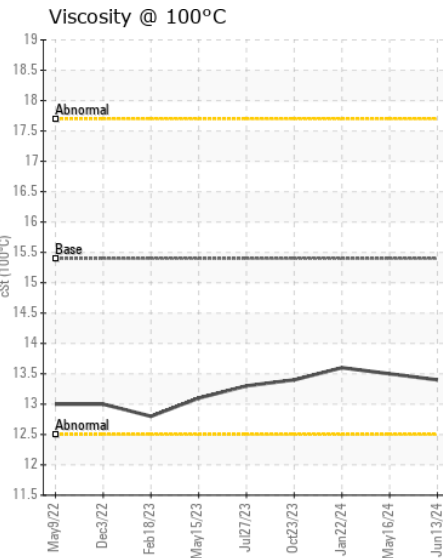
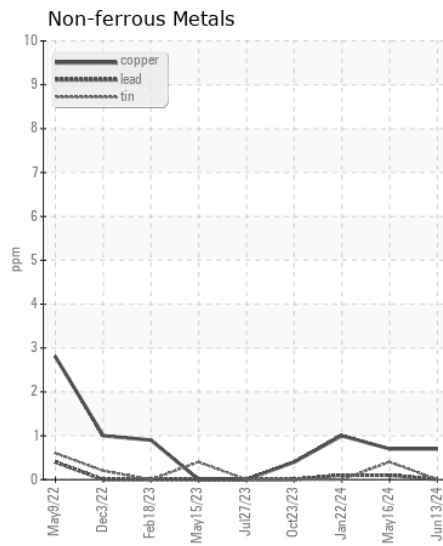
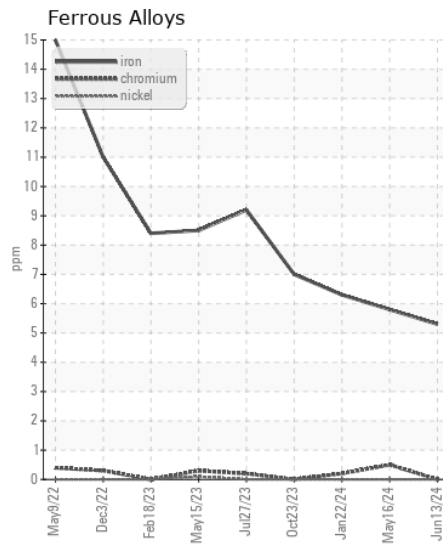
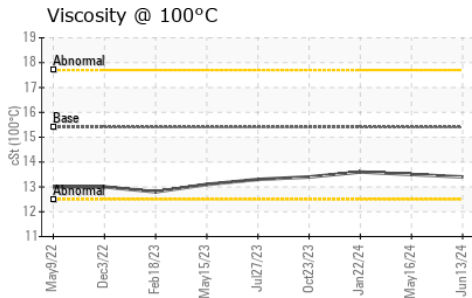
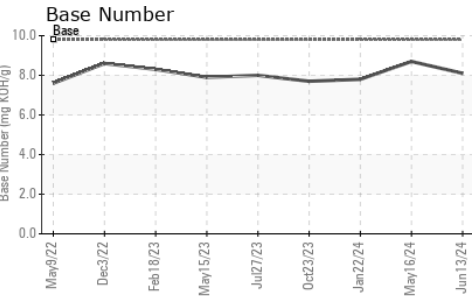
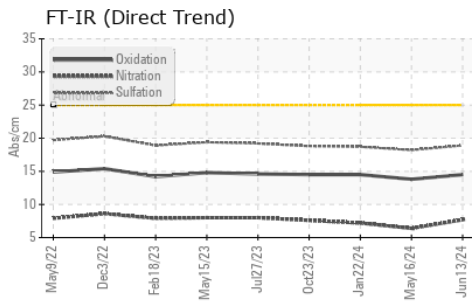
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >30 | 3 | 4 | 3 |
| Potassium | ppm | ASTM D5185m | >20 | 3 | 3 | 0 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.4 | 0.3 | 0.3 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 7.7 | 6.4 | 7.2 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 18.9 | 18.2 | 18.7 |
| 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 | | 2 | <1 | 2 |
| Boron | ppm | ASTM D5185m | 0 | 8 | 9 | 5 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 60 | 63 | 64 | 60 |
| Manganese | ppm | ASTM D5185m | 0 | <1 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | 1010 | 911 | 907 | 1013 |
| Calcium | ppm | ASTM D5185m | 1070 | 1172 | 1135 | 1116 |
| Phosphorus | ppm | ASTM D5185m | 1150 | 1122 | 945 | 1056 |
| Zinc | ppm | ASTM D5185m | 1270 | 1291 | 1217 | 1321 |
| Sulfur | ppm | ASTM D5185m | 2060 | 3677 | 3162 | 3159 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 14.5 | 13.8 | 14.5 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 9.8 | 8.1 | 8.7 | 7.8 |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | 13.4 | 13.5 | 13.6 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0106040
Lab Number : 06212840
Unique Number : 11085704
Test Package : FLEET
Received : 17 Jun 2024
Tested : 19 Jun 2024
Diagnosed : 19 Jun 2024 - Wes Davis

GFL Environmental - 152 - Jacksonville
 7580 PHILIPS HWY
 Jacksonville, FL
 US 32256
 Contact: GRANVILLE CARROLL
 gcarroll@gflenv.com
 T: 1(904)252-6815
 F:

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)