



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

Area
(P830964)

Machine Id
832001

Component
Diesel Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (40 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | GFL0101775 | GFL0070773 | GFL0047430 |
| Sample Date | | Client Info | | 12 Jan 2024 | 22 Jun 2023 | 09 Feb 2023 |
| Machine Age | hrs | Client Info | | 5724 | 4378 | 3255 |
| Oil Age | hrs | Client Info | | 600 | 600 | 600 |
| Filter Age | hrs | Client Info | | 600 | 600 | 600 |
| 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 D5185m | >90 | 12 | 16 | 7 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | 2 | <1 |
| Nickel | ppm | ASTM D5185m | >2 | <1 | <1 | <1 |
| Titanium | ppm | ASTM D5185m | >2 | <1 | <1 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 2 | 7 | 1 |
| Lead | ppm | ASTM D5185m | >40 | 1 | 8 | 2 |
| Copper | ppm | ASTM D5185m | >330 | 4 | 3 | 2 |
| Tin | ppm | ASTM D5185m | >15 | <1 | 2 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

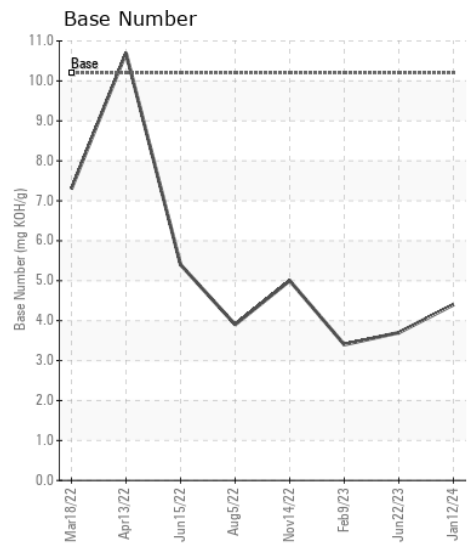
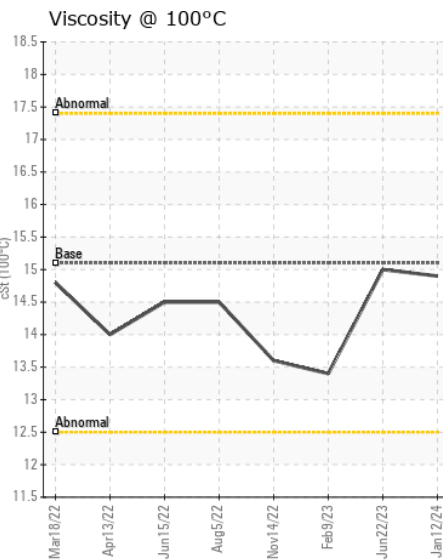
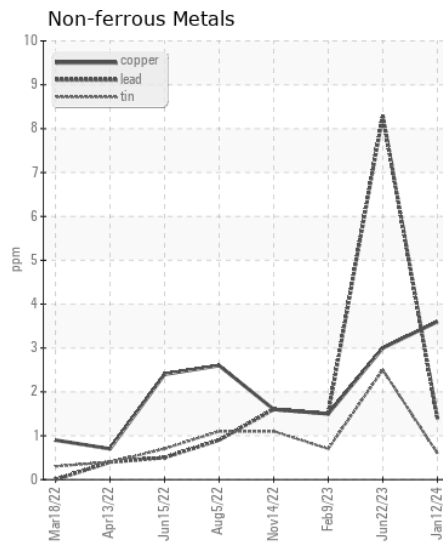
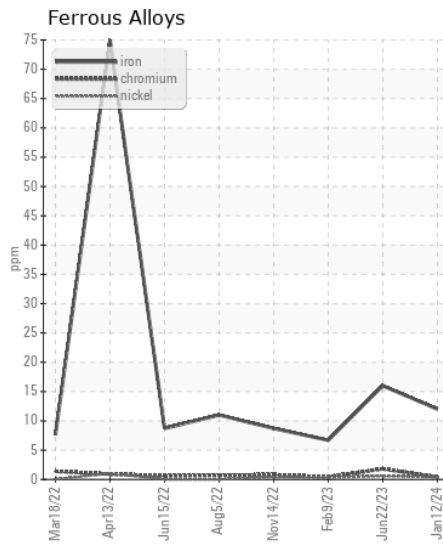
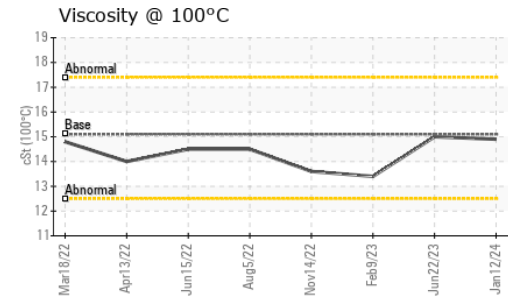
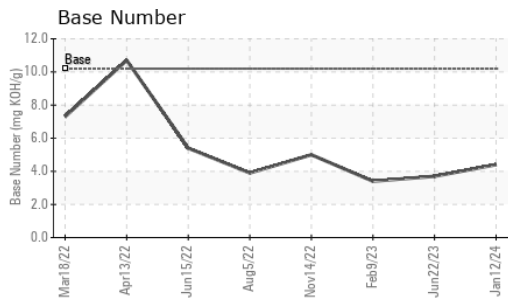
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 8 | 16 | 4 |
| Potassium | ppm | ASTM D5185m | >20 | 1 | <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 | >6 | 0 | 0.1 | 0.1 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 11.4 | 11.7 | 11.3 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 22.4 | 25.8 | 23.1 |
| 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 | 10 | 6 |
| Boron | ppm | ASTM D5185m | 50 | 13 | 9 | 4 |
| Barium | ppm | ASTM D5185m | 5 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 50 | 50 | 62 | 55 |
| Manganese | ppm | ASTM D5185m | 0 | 2 | 2 | <1 |
| Magnesium | ppm | ASTM D5185m | 560 | 582 | 628 | 499 |
| Calcium | ppm | ASTM D5185m | 1510 | 1520 | 1935 | 1503 |
| Phosphorus | ppm | ASTM D5185m | 780 | 741 | 785 | 621 |
| Zinc | ppm | ASTM D5185m | 870 | 966 | 1064 | 897 |
| Sulfur | ppm | ASTM D5185m | 2040 | 2357 | 2922 | 2717 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 19.0 | 22.4 | 17.8 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 10.2 | 4.4 | 3.7 | 3.4 |
| Visc @ 100°C | cSt | ASTM D445 | 15.1 | 14.9 | 15.0 | 13.4 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0101775 **Received** : 18 Jan 2024
Lab Number : 06064161 **Diagnosed** : 19 Jan 2024
Unique Number : 10835543 **Diagnostician** : Wes Davis
Test Package : FLEET

GFL Environmental - 030 - Conway Myrtle Beach
 3010 HWY 378
 Conway, SC
 US 29527
 Contact: ARCILIO RUEZ
 aruiz@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)

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F: