



Machine Id
949010-205269

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition. (Customer Sample Comment: Engine oil sample)

WEAR

All component wear rates are normal.

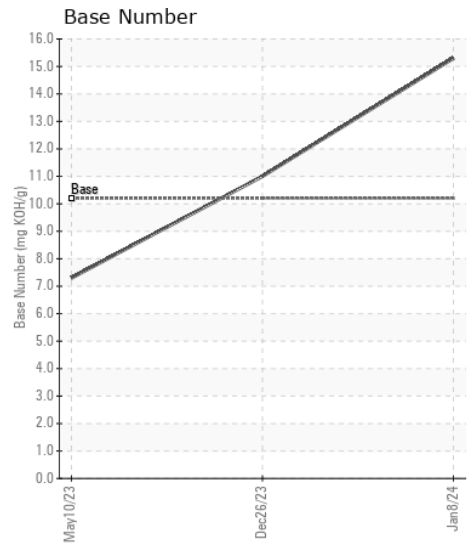
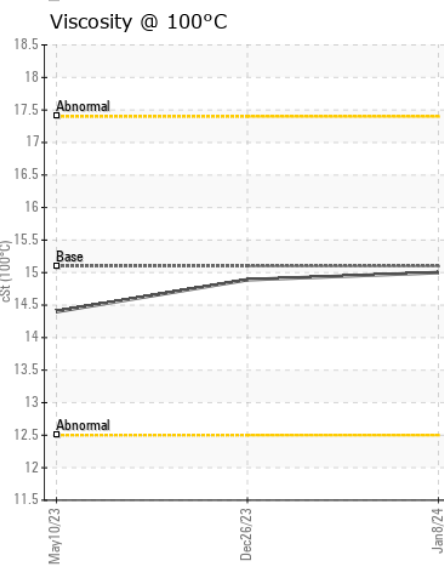
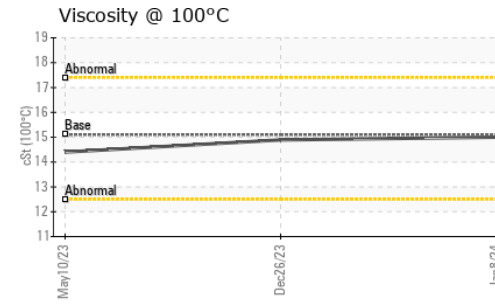
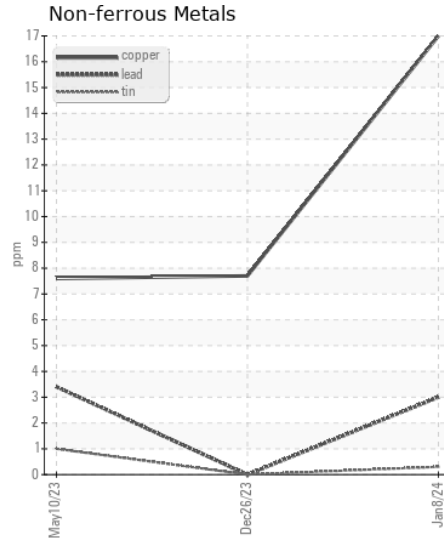
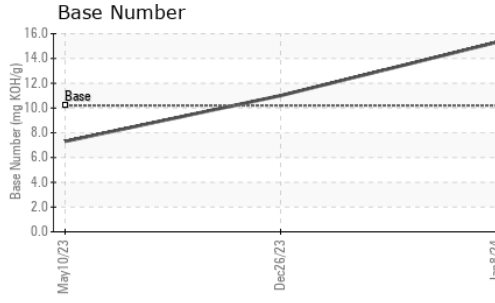
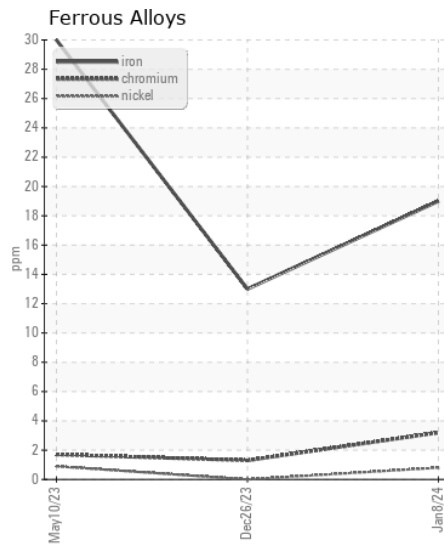
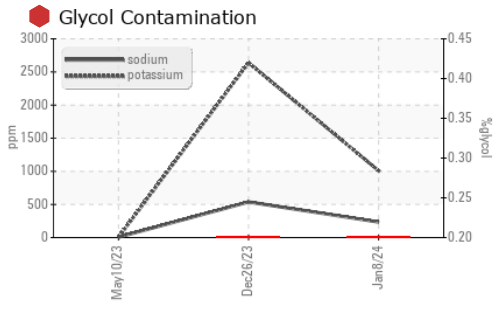
CONTAMINATION

Sodium and/or potassium levels are high. There is a high concentration of glycol present in the oil.

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|------------------|----------|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | GFL0100551 | GFL0100548 | GFL0065148 |
| Sample Date | | Client Info | | 08 Jan 2024 | 26 Dec 2023 | 10 May 2023 |
| Machine Age | hrs | Client Info | | 14513 | 14442 | 12898 |
| Oil Age | hrs | Client Info | | 14513 | 14442 | 0 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Not Chngd | Changed | Changed |
| Filter Changed | | Client Info | | Not Chngd | Changed | Changed |
| Sample Status | | | | SEVERE | SEVERE | NORMAL |
| Iron | ppm | ASTM D5185m | >50 | 19 | 13 | 30 |
| Chromium | ppm | ASTM D5185m | >4 | 3 | 1 | 2 |
| Nickel | ppm | ASTM D5185m | >2 | <1 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >9 | 3 | 2 | 4 |
| Lead | ppm | ASTM D5185m | >30 | 3 | 0 | 3 |
| Copper | ppm | ASTM D5185m | >35 | 17 | 8 | 8 |
| Tin | ppm | ASTM D5185m | >4 | <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 |
| Silicon | ppm | ASTM D5185m | >+100 | 13 | 11 | 53 |
| Potassium | ppm | ASTM D5185m | >20 | 1008 | 2639 | 5 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Glycol | % | *ASTM D2982 | | 0.20 | 0.20 | --- |
| Soot % | % | *ASTM D7844 | | 0.1 | 0 | 0 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 9.7 | 11.3 | 10.2 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 18.5 | 21.0 | 20.5 |
| 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 | >0.1 | NEG | NEG | NEG |
| Sodium | ppm | ASTM D5185m | | 235 | 538 | 6 |
| Boron | ppm | ASTM D5185m | 50 | 37 | 19 | 22 |
| Barium | ppm | ASTM D5185m | 5 | 0 | 6 | 4 |
| Molybdenum | ppm | ASTM D5185m | 50 | 162 | 399 | 50 |
| Manganese | ppm | ASTM D5185m | 0 | 1 | 0 | 3 |
| Magnesium | ppm | ASTM D5185m | 560 | 565 | 461 | 724 |
| Calcium | ppm | ASTM D5185m | 1510 | 1546 | 1234 | 1358 |
| Phosphorus | ppm | ASTM D5185m | 780 | 884 | 687 | 765 |
| Zinc | ppm | ASTM D5185m | 870 | 1064 | 788 | 936 |
| Sulfur | ppm | ASTM D5185m | 2040 | 2607 | 2815 | 2887 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 16.4 | 15.4 | 18.4 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 10.2 | 15.3 | 11.0 | 7.3 |
| Visc @ 100°C | cSt | ASTM D445 | 15.1 | 15.0 | 14.89 | 14.4 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0100551 **Received** : 12 Jan 2024
Lab Number : 06059973 **Diagnosed** : 16 Jan 2024
Unique Number : 10831355 **Diagnostician** : Don Baldrige
Test Package : FLEET

GFL Environmental - 865 - East Mount Hauling
 7213 East Mount Houston Road
 Houston, TX
 US 77050
 Contact: Jose Gonzalez
 jgonzalez2@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)