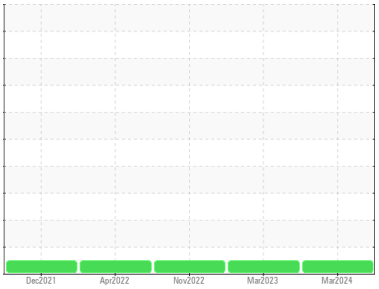
# OIL ANALYSIS REPORT

Sample Rating Trend




NORMAL

Machine Id
**731065**
Component
**Natural Gas Engine**
Fluid
**PETRO CANADA DURON GEO LD 15W40 (--- LTR)**

## DIAGNOSIS

**Recommendation**
Resample at the next service interval to monitor.

**Wear**
All component wear rates are normal.

**Contamination**
There is no indication of any contamination in the oil.

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

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **GFL0110253** | GFL0064339 | GFL0054897 |
| Sample Date | | Client Info | | **05 Mar 2024** | 16 Mar 2023 | 02 Nov 2022 |
| Machine Age | hrs | Client Info | | **4962** | 2995 | 2242 |
| Oil Age | hrs | Client Info | | **1200** | 1000 | 1000 |
| Oil Changed | | Client Info | | **Changed** | Changed | Changed |
| Sample Status | | | | **NORMAL** | NORMAL | NORMAL |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Water | | WC Method | >0.1 | **NEG** | NEG | NEG |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185(m) | >50 | **10** | 10 | 15 |
| Chromium | ppm | ASTM D5185(m) | >4 | **<1** | <1 | <1 |
| Nickel | ppm | ASTM D5185(m) | >2 | **<1** | <1 | <1 |
| Titanium | ppm | ASTM D5185(m) | | **0** | <1 | <1 |
| Silver | ppm | ASTM D5185(m) | >3 | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >9 | **2** | 2 | 4 |
| Lead | ppm | ASTM D5185(m) | >30 | **5** | <1 | 1 |
| Copper | ppm | ASTM D5185(m) | >35 | **2** | 2 | 2 |
| Tin | ppm | ASTM D5185(m) | >4 | **<1** | <1 | 1 |
| Antimony | ppm | ASTM D5185(m) | | **0** | <1 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Beryllium | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Cadmium | ppm | ASTM D5185(m) | | **0** | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185(m) | 50 | **6** | 7 | 10 |
| Barium | ppm | ASTM D5185(m) | 5 | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 50 | **52** | 56 | 105 |
| Manganese | ppm | ASTM D5185(m) | 0 | **0** | <1 | 1 |
| Magnesium | ppm | ASTM D5185(m) | 560 | **570** | 573 | 660 |
| Calcium | ppm | ASTM D5185(m) | 1510 | **1651** | 1605 | 1420 |
| Phosphorus | ppm | ASTM D5185(m) | 780 | **696** | 722 | 725 |
| Zinc | ppm | ASTM D5185(m) | 870 | **905** | 913 | 756 |
| Sulfur | ppm | ASTM D5185(m) | 2040 | **2108** | 2057 | 2262 |
| Lithium | ppm | ASTM D5185(m) | | **<1** | <1 | <1 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185(m) | >+100 | **3** | 4 | 6 |
| Sodium | ppm | ASTM D5185(m) | | **9** | 8 | <1 |
| Potassium | ppm | ASTM D5185(m) | >20 | **1** | <1 | 0 |

| INFRA-RED | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Soot % | % | ASTM D7844* | | **0** | 0 | 0 |
| Nitration | Abs/cm | ASTM D7624* | >20 | **11.6** | 10.2 | 9.4 |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | **24.5** | 23.3 | 22.1 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Oxidation | Abs/.1mm | ASTM D7414* | >25 | **20.1** | 16.4 | 16.4 |

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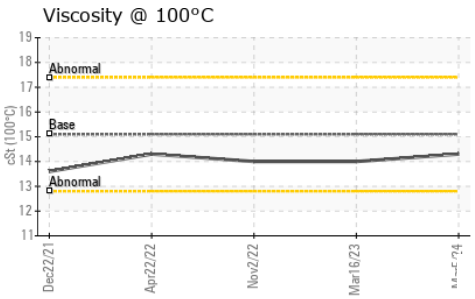
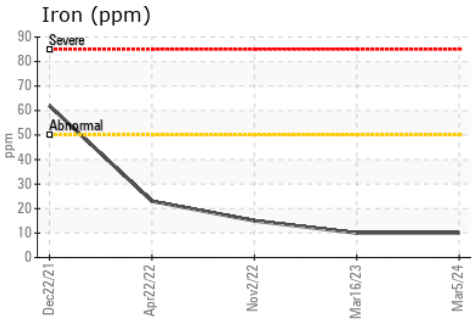
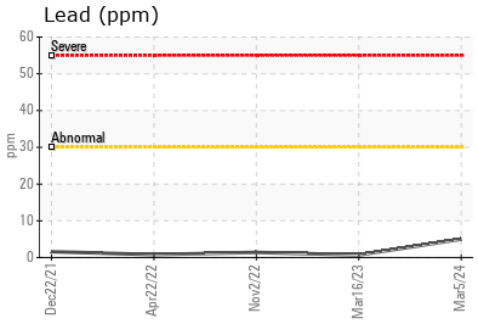


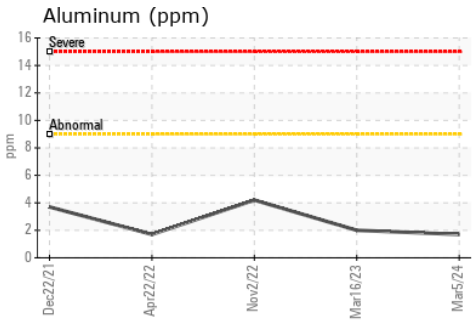

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Emulsified Water | scalar | Visual* | >0.1 | **NEG** | NEG | NEG |
| Free Water | scalar | Visual* | | **NEG** | NEG | NEG |

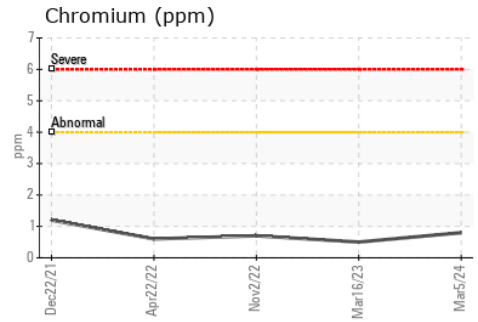
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 100°C | cSt | ASTM D7279(m) | 15.1 | **14.3** | 14.0 | 14.0 |

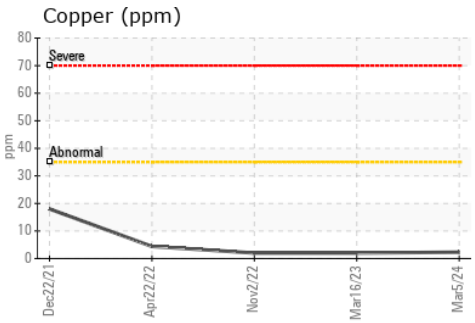
## GRAPHS

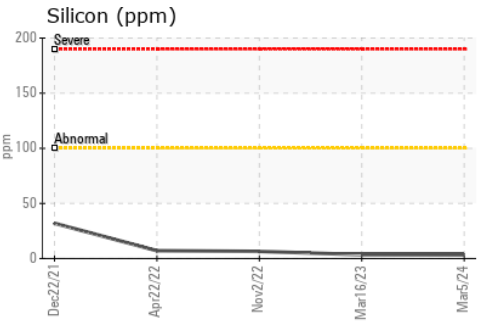


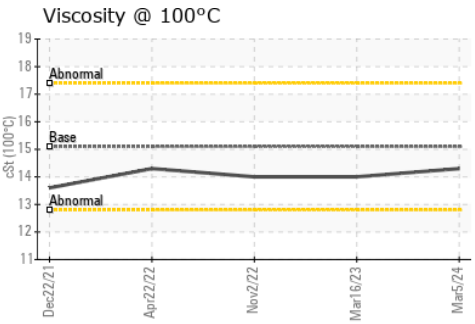



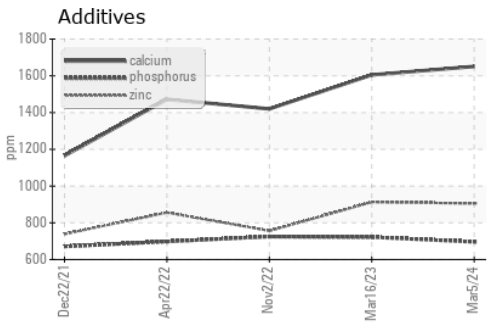




ISO 17025:2017 Accredited Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
**Sample No.** : GFL0110253
**Lab Number** : 02620510
**Unique Number** : 5737620
**Test Package** : MOB 1

**Received** : 07 Mar 2024
**Tested** : 07 Mar 2024
**Diagnosed** : 07 Mar 2024 - Wes Davis

*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.*

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