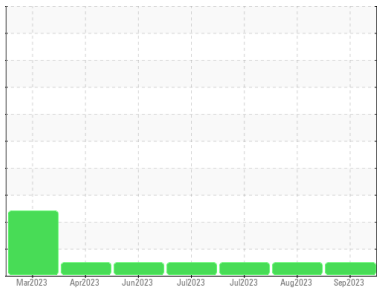
# OIL ANALYSIS REPORT

Sample Rating Trend




**NORMAL**

Machine Id
**413109**
Component
**Transmission (Auto)**
Fluid
**PETRO CANADA DuraDrive HD Synthetic 668 (8 GAL)**

## 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 | | **GFL0094280** | GFL0091391 | GFL0086110 |
| Sample Date | | Client Info | | **22 Sep 2023** | 28 Aug 2023 | 13 Jul 2023 |
| Machine Age | hrs | Client Info | | **1337** | 1126 | 818 |
| Oil Age | hrs | Client Info | | **133** | 1126 | 818 |
| Oil Changed | | Client Info | | **Not Changd** | Not Changd | Not Changd |
| Sample Status | | | | **NORMAL** | NORMAL | NORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >300 | **45** | 46 | 12 |
| Chromium | ppm | ASTM D5185m | >2 | **<1** | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >4 | **0** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | >3 | **0** | 0 | 0 |
| Silver | ppm | ASTM D5185m | >5 | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >70 | **16** | 17 | <1 |
| Lead | ppm | ASTM D5185m | >85 | **3** | 2 | 26 |
| Copper | ppm | ASTM D5185m | >90 | **15** | 13 | 2 |
| Tin | ppm | ASTM D5185m | >10 | **4** | 4 | 0 |
| Vanadium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **56** | 57 | 70 |
| Barium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | **2** | 0 | <1 |
| Manganese | ppm | ASTM D5185m | | **3** | 2 | 1 |
| Magnesium | ppm | ASTM D5185m | | **6** | 0 | 5 |
| Calcium | ppm | ASTM D5185m | | **130** | 122 | 304 |
| Phosphorus | ppm | ASTM D5185m | | **216** | 214 | 300 |
| Zinc | ppm | ASTM D5185m | | **9** | 0 | 16 |
| Sulfur | ppm | ASTM D5185m | | **1700** | 2107 | 1448 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >20 | **4** | 4 | 11 |
| Sodium | ppm | ASTM D5185m | | **8** | 5 | 7 |
| Potassium | ppm | ASTM D5185m | >20 | **6** | 4 | 1 |

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| 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 |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 34 | **33.1** | 32.9 | 28.8 |

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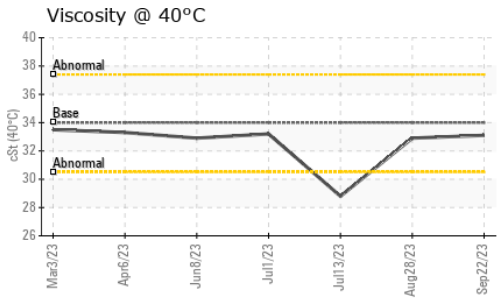
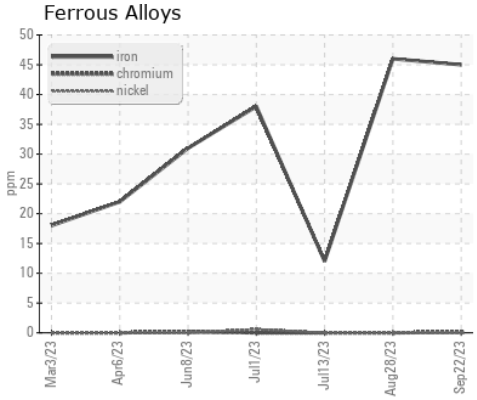


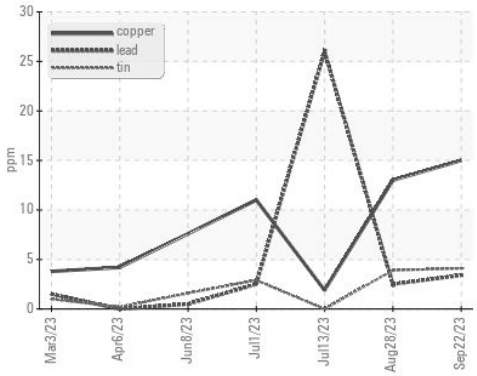

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | | no image | no image | no image |
| Bottom | | | no image | no image | no image |

## GRAPHS

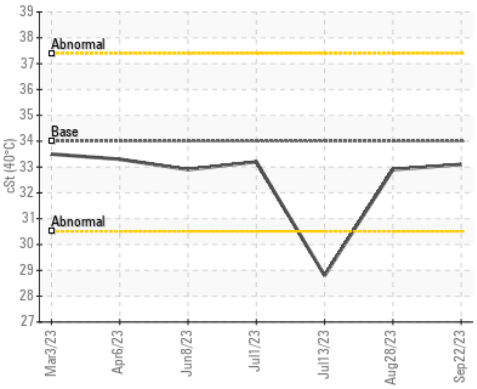
Ferrous Alloys




Non-ferrous Metals




Viscosity @ 40°C




Certificate L2367

| | | | |
|---|---|---|---|
| **Laboratory** | : WearCheck USA - 501 Madison Ave., Cary, NC 27513 | | |
| **Sample No.** | : GFL0094280 | **Received** | : 28 Sep 2023 |
| **Lab Number** | : 05963860 | **Diagnosed** | : 01 Oct 2023 |
| **Unique Number** | : 10670411 | **Diagnostician** | : Don Baldridge |
| **Test Package** | : FLEET | | |

*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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