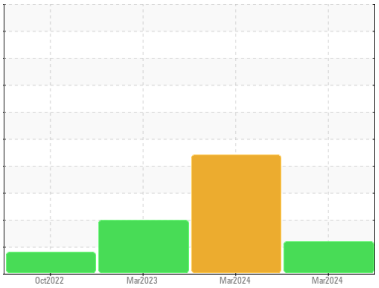
# OIL ANALYSIS REPORT

Machine Id
**711021**
Component
**Hydraulic System**
Fluid
**PETRO CANADA HYDREX MV 32 (--- GAL)**

Sample Rating Trend




**ISO**

## DIAGNOSIS

**Recommendation**
Nous recommandons le remplacement des filtres de ce composant. Nous vous recommandons d'échantillonner de nouveau dès que possible afin de contrôler la situation.

**Wear**
Les taux d'usure de tous les composants sont normaux.

**Contamination**
Il y a une quantité modérée de particules (de 4 à 14 microns) dans l'huile.

**Fluid Condition**
l'huile peut encore servir si la contamination peut être réduite à un niveau acceptable.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **GFL0114850** | GFL0114905 | GFL0073469 |
| Sample Date | | Client Info | | **27 Mar 2024** | 12 Mar 2024 | 30 Mar 2023 |
| Machine Age | hrs | Client Info | | **5921** | 0 | 3647 |
| Oil Age | hrs | Client Info | | **0** | 0 | 1200 |
| Oil Changed | | Client Info | | **N/A** | Not Changd | Not Changd |
| Sample Status | | | | **ABNORMAL** | SEVERE | SEVERE |

| 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 | **13** | 17 | 11 |
| Chromium | ppm | ASTM D5185(m) | >10 | **1** | 2 | 1 |
| Nickel | ppm | ASTM D5185(m) | >4 | **0** | 0 | <1 |
| Titanium | ppm | ASTM D5185(m) | | **0** | 0 | <1 |
| Silver | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >5 | **1** | 2 | <1 |
| Lead | ppm | ASTM D5185(m) | >4 | **0** | 0 | <1 |
| Copper | ppm | ASTM D5185(m) | >15 | **2** | 2 | 2 |
| Tin | ppm | ASTM D5185(m) | >4 | **0** | 0 | <1 |
| Antimony | ppm | ASTM D5185(m) | | **0** | 0 | 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) | 0 | **0** | 0 | <1 |
| Barium | ppm | ASTM D5185(m) | 0 | **0** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | 0 | **0** | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) | 1 | **0** | 0 | <1 |
| Magnesium | ppm | ASTM D5185(m) | 0 | **2** | 2 | <1 |
| Calcium | ppm | ASTM D5185(m) | 50 | **49** | 53 | 48 |
| Phosphorus | ppm | ASTM D5185(m) | 330 | **310** | 325 | 341 |
| Zinc | ppm | ASTM D5185(m) | 430 | **395** | 397 | 383 |
| Sulfur | ppm | ASTM D5185(m) | 760 | **710** | 763 | 744 |
| Lithium | ppm | ASTM D5185(m) | | **<1** | <1 | <1 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185(m) | >15 | **2** | 4 | 2 |
| Sodium | ppm | ASTM D5185(m) | | **10** | 13 | 11 |
| Potassium | ppm | ASTM D5185(m) | >20 | **1** | 2 | 1 |

| FLUID CLEANLINESS | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Particles >4µm | ASTM D7647 | >5000 | ▲ **34772** | ▲ 157219 | ▲ 48205 |
| Particles >6µm | ASTM D7647 | >1300 | ● **1396** | ▲ 58042 | ▲ 3601 |
| Particles >14µm | ASTM D7647 | >160 | **110** | ▲ 735 | 141 |
| Particles >21µm | ASTM D7647 | >40 | **25** | ▲ 149 | 27 |
| Particles >38µm | ASTM D7647 | >10 | **2** | 5 | 1 |
| Particles >71µm | ASTM D7647 | >3 | **0** | 1 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >19/17/14 | ▲ **22/18/14** | ▲ 24/23/17 | ▲ 23/19/14 |

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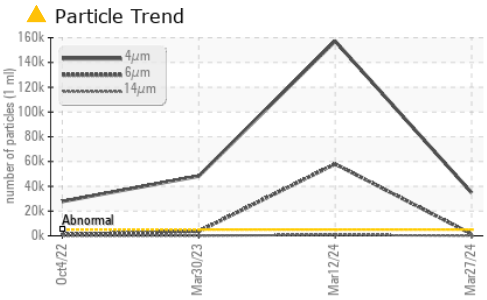
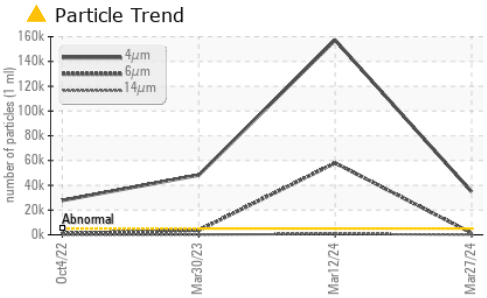
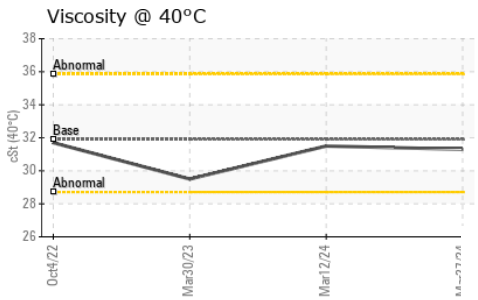


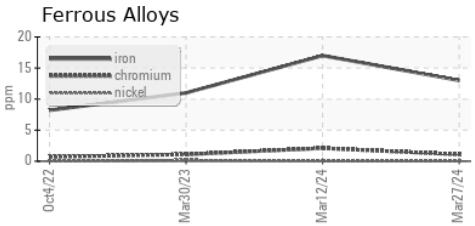



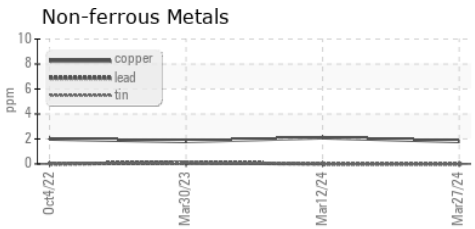

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | Visual* | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | Visual* | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | Visual* | NONE | **NONE** | NONE | NONE |
|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

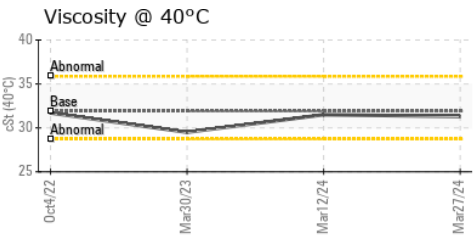
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D7279(m) | 31.9 | **31.3** | 31.5 | 29.5 |

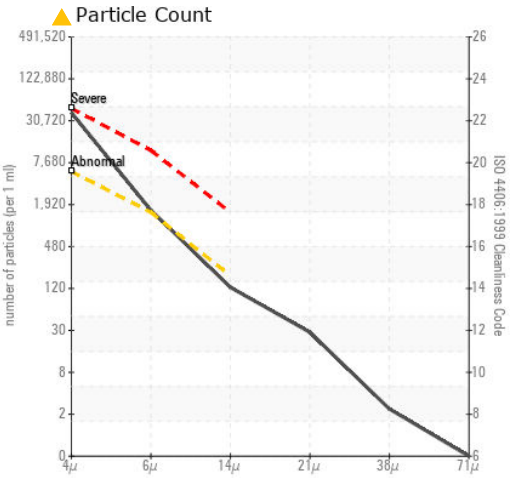
| SAMPLE IMAGES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Color | | | |  | | |
| Bottom | | | |  | | |

## GRAPHS




ISO 17025:2017 Accredited Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
**Sample No.** : GFL0114850
**Lab Number** : 02626116
**Unique Number** : 5759248
**Test Package** : MOB 1 ( Additional Tests: PrtCount )

**Received** : 02 Apr 2024
**Tested** : 03 Apr 2024
**Diagnosed** : 03 Apr 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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