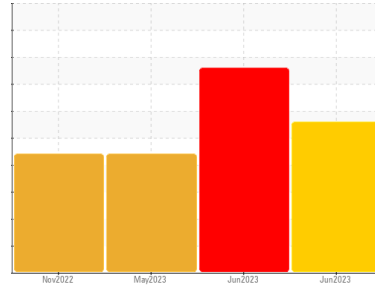




# OIL ANALYSIS REPORT

## Sample Rating Trend



ISO



Machine Id  
**9255**

Component  
**Hydraulic System**

Fluid  
**PETRO CANADA HYDREX MV 32 (--- GAL)**

## DIAGNOSIS

### Recommendation

Nous vous recommandons de vérifier tous les endroits par lesquels des contaminants peuvent pénétrer dans le système. Nous vous recommandons de vérifier la présence de particules métalliques visibles dans l'huile. Nous vous recommandons de remplacer le filtre et d'utiliser un système de filtrage hors-ligne afin d'améliorer la propreté du fluide. Le reniflard d'air doit être réparé. S'il n'est pas classé, nous vous recommandons de le remplacer par un reniflard à air adapté au micron et / ou au dessicant. Si évalué, nous vous recommandons de réparer / remplacer le reniflard. Échantillonner de nouveau dans 30 à 45 jours afin de contrôler la situation.

### Wear

Présence d'une faible concentration de métal visible.

### Contamination

Il y a une quantité élevée de matières particulaires (2 à 100 µm de taille) présente dans l'huile.

### Fluid Condition

l'huile n'est plus en état de service en raison d'une usure anormale et/ou sévère.

## SAMPLE INFORMATION

| method        | limit/base  | current            | history 1   | history 2   |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | <b>GFL0084474</b>  | GFL0073434  | GFL0073457  |
| Sample Date   | Client Info | <b>22 Jun 2023</b> | 15 Jun 2023 | 03 May 2023 |
| Machine Age   | kms         | <b>354046</b>      | 353116      | 16264       |
| Oil Age       | kms         | <b>0</b>           | 1200        | 1200        |
| Oil Changed   | Client Info | <b>Not Changed</b> | Not Changed | Not Changed |
| Sample Status |             | <b>SEVERE</b>      | SEVERE      | SEVERE      |

## WEAR METALS

| method    | limit/base | current           | history 1    | history 2 |    |
|-----------|------------|-------------------|--------------|-----------|----|
| Iron      | ppm        | ASTM D5185(m) >50 | <b>6</b>     | 10        | 6  |
| Chromium  | ppm        | ASTM D5185(m) >10 | <b>2</b>     | 1         | 1  |
| Nickel    | ppm        | ASTM D5185(m) >4  | <b>&lt;1</b> | 0         | <1 |
| Titanium  | ppm        | ASTM D5185(m)     | <b>0</b>     | <1        | <1 |
| Silver    | ppm        | ASTM D5185(m)     | <b>0</b>     | 0         | 0  |
| Aluminum  | ppm        | ASTM D5185(m) >5  | <b>&lt;1</b> | <1        | 1  |
| Lead      | ppm        | ASTM D5185(m) >4  | <b>0</b>     | 0         | 0  |
| Copper    | ppm        | ASTM D5185(m) >15 | <b>&lt;1</b> | <1        | <1 |
| Tin       | ppm        | ASTM D5185(m) >4  | <b>0</b>     | 0         | 0  |
| Antimony  | ppm        | ASTM D5185(m)     | <b>0</b>     | <1        | <1 |
| Vanadium  | ppm        | ASTM D5185(m)     | <b>0</b>     | 0         | 0  |
| Beryllium | ppm        | ASTM D5185(m)     | <b>0</b>     | 0         | 0  |
| Cadmium   | ppm        | ASTM D5185(m)     | <b>0</b>     | 0         | 0  |

## ADDITIVES

| method     | limit/base | current           | history 1    | history 2 |     |
|------------|------------|-------------------|--------------|-----------|-----|
| Boron      | ppm        | ASTM D5185(m) 0   | <b>&lt;1</b> | <1        | <1  |
| Barium     | ppm        | ASTM D5185(m) 0   | <b>0</b>     | 0         | 0   |
| Molybdenum | ppm        | ASTM D5185(m) 0   | <b>&lt;1</b> | <1        | <1  |
| Manganese  | ppm        | ASTM D5185(m) 1   | <b>0</b>     | <1        | 0   |
| Magnesium  | ppm        | ASTM D5185(m) 0   | <b>4</b>     | 4         | 5   |
| Calcium    | ppm        | ASTM D5185(m) 50  | <b>60</b>    | 62        | 62  |
| Phosphorus | ppm        | ASTM D5185(m) 330 | <b>367</b>   | 366       | 366 |
| Zinc       | ppm        | ASTM D5185(m) 430 | <b>423</b>   | 435       | 418 |
| Sulfur     | ppm        | ASTM D5185(m) 760 | <b>776</b>   | 814       | 802 |
| Lithium    | ppm        | ASTM D5185(m)     | <b>&lt;1</b> | <1        | <1  |

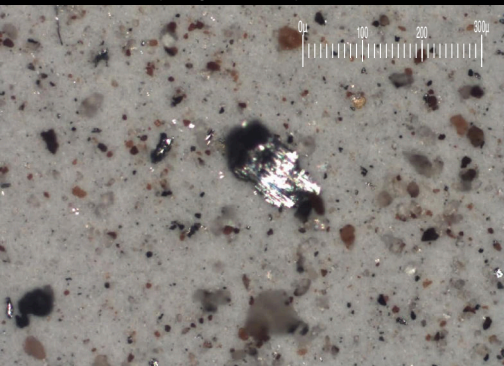
## CONTAMINANTS

| method    | limit/base | current           | history 1    | history 2 |    |
|-----------|------------|-------------------|--------------|-----------|----|
| Silicon   | ppm        | ASTM D5185(m) >15 | <b>2</b>     | 1         | 2  |
| Sodium    | ppm        | ASTM D5185(m)     | <b>3</b>     | 3         | 4  |
| Potassium | ppm        | ASTM D5185(m) >20 | <b>&lt;1</b> | 1         | <1 |

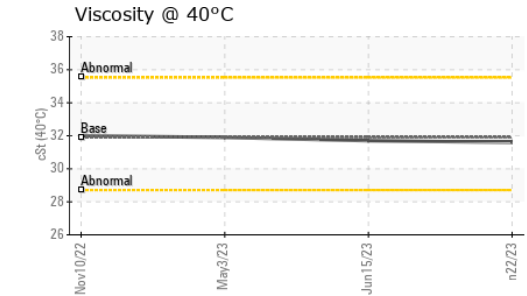
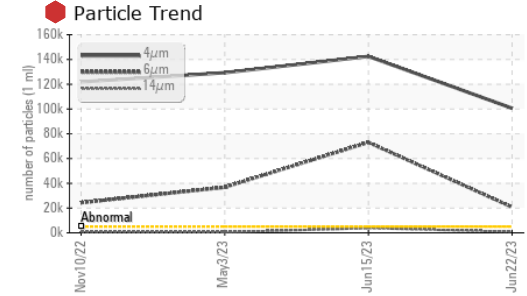
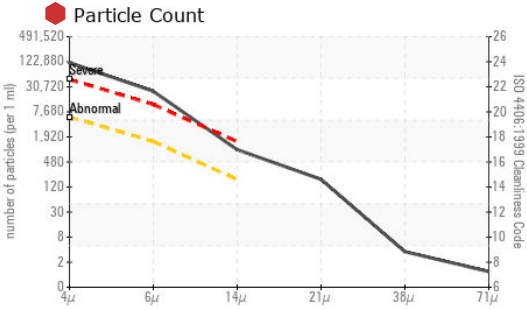
## FLUID CLEANLINESS

| method          | limit/base             | current         | history 1 | history 2 |
|-----------------|------------------------|-----------------|-----------|-----------|
| Particles >4µm  | ASTM D7647 >5000       | <b>100629</b>   | 142488    | 129305    |
| Particles >6µm  | ASTM D7647 >1300       | <b>20760</b>    | 73045     | 36790     |
| Particles >14µm | ASTM D7647 >160        | <b>831</b>      | 3748      | 506       |
| Particles >21µm | ASTM D7647 >40         | <b>162</b>      | 479       | 102       |
| Particles >38µm | ASTM D7647 >10         | <b>3</b>        | 1         | 4         |
| Particles >71µm | ASTM D7647 >3          | <b>1</b>        | 0         | 0         |
| Oil Cleanliness | ISO 4406 (c) >19/17/14 | <b>24/22/17</b> | 24/23/19  | 24/22/16  |

Particle Filter (Magn: 100 x)



# OIL ANALYSIS REPORT



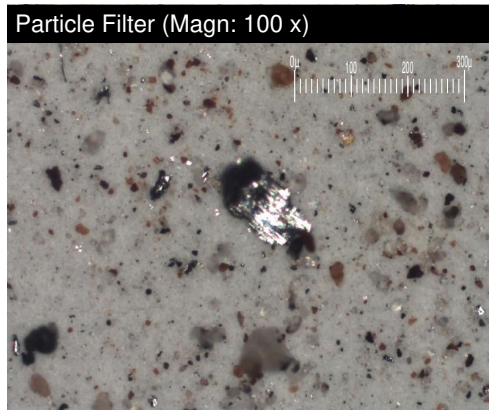
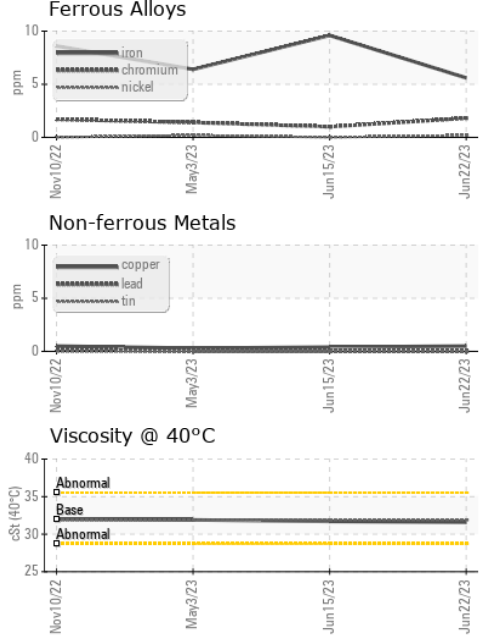
| VISUAL           | method | limit/base | current | history 1 | history 2 |       |
|------------------|--------|------------|---------|-----------|-----------|-------|
| White Metal      | scalar | Visual*    | NONE    | ▲ VLITE   | NONE      | NONE  |
| Yellow Metal     | scalar | Visual*    | NONE    | 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      | LIGHT     | 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 | history 1 | history 2 |      |
|------------------|--------|---------------|---------|-----------|-----------|------|
| Visc @ 40°C      | cSt    | ASTM D7279(m) | 31.9    | 31.6      | 31.7      | 31.9 |

### SAMPLE IMAGES

|           | method | limit/base | current | history 1 | history 2       |
|-----------|--------|------------|---------|-----------|-----------------|
| Color     |        |            |         |           |                 |
| Bottom    |        |            |         |           |                 |
| PrtFilter |        |            |         |           | <i>no image</i> |

### GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 780 - GMA - ICI - Solid Waste  
**Sample No.** : GFL0084474 **Received** : 10 Jul 2023 4365 boul. St-Elzear Ouest,  
**Lab Number** : 02568828 **Diagnosed** : 11 Jul 2023 Laval, QC  
**Unique Number** : 5605874 **Diagnostician** : Kevin Marson CA H7P 4J3  
**Test Package** : MOB 1 ( Additional Tests: Bottom, BottomAnalysis, FilterPatch, PrtCount, PrtFilter ) Contact: Pieces Laval  
*To discuss this sample report, contact Customer Service at 1-800-268-2131.* pieces.laval@gflenv.com  
*Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.* T: (450)687-3838  
*Validity of results and interpretation are based on the sample and information as supplied.* F: