



|                 |                 |
|-----------------|-----------------|
| WEAR            | <b>NORMAL</b>   |
| CONTAMINATION   | <b>ABNORMAL</b> |
| FLUID CONDITION | <b>NORMAL</b>   |

Machine Id  
**921062**  
Component  
**Hydraulic System**  
Fluid  
**PETRO CANADA HYDREX MV 46 (--- GAL)**

**RECOMMENDATION**

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|----------|----------|
| Sample Number  |     | Client Info |           | <b>GFL0122829</b>  | ---      | ---      |
| Sample Date    |     | Client Info |           | <b>13 Jun 2024</b> | ---      | ---      |
| Machine Age    | hrs | Client Info |           | <b>8748</b>        | ---      | ---      |
| Oil Age        | hrs | Client Info |           | <b>7751</b>        | ---      | ---      |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | ---      | ---      |
| Oil Changed    |     | Client Info |           | <b>Not Changed</b> | ---      | ---      |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | ---      | ---      |
| Sample Status  |     |             |           | <b>ABNORMAL</b>    | ---      | ---      |

**WEAR**

All component wear rates are normal.

|              |        |             |      |              |     |     |
|--------------|--------|-------------|------|--------------|-----|-----|
| Iron         | ppm    | ASTM D5185m | >20  | <b>21</b>    | --- | --- |
| Chromium     | ppm    | ASTM D5185m | >10  | <b>&lt;1</b> | --- | --- |
| Nickel       | ppm    | ASTM D5185m | >10  | <b>0</b>     | --- | --- |
| Titanium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | --- | --- |
| Silver       | ppm    | ASTM D5185m |      | <b>0</b>     | --- | --- |
| Aluminum     | ppm    | ASTM D5185m | >10  | <b>&lt;1</b> | --- | --- |
| Lead         | ppm    | ASTM D5185m | >10  | <b>0</b>     | --- | --- |
| Copper       | ppm    | ASTM D5185m | >75  | <b>2</b>     | --- | --- |
| Tin          | ppm    | ASTM D5185m | >10  | <b>0</b>     | --- | --- |
| Vanadium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | --- | --- |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | --- | --- |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | --- | --- |

**CONTAMINATION**

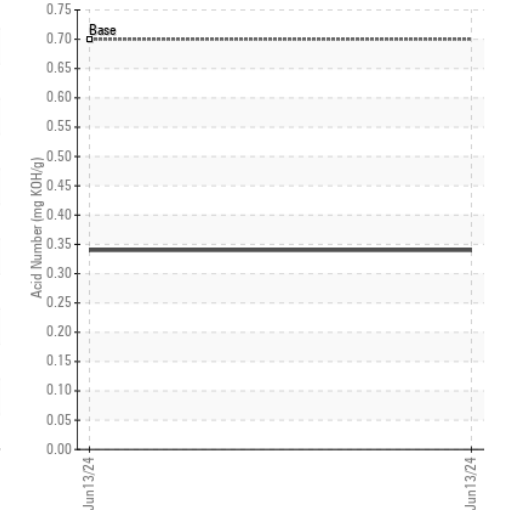
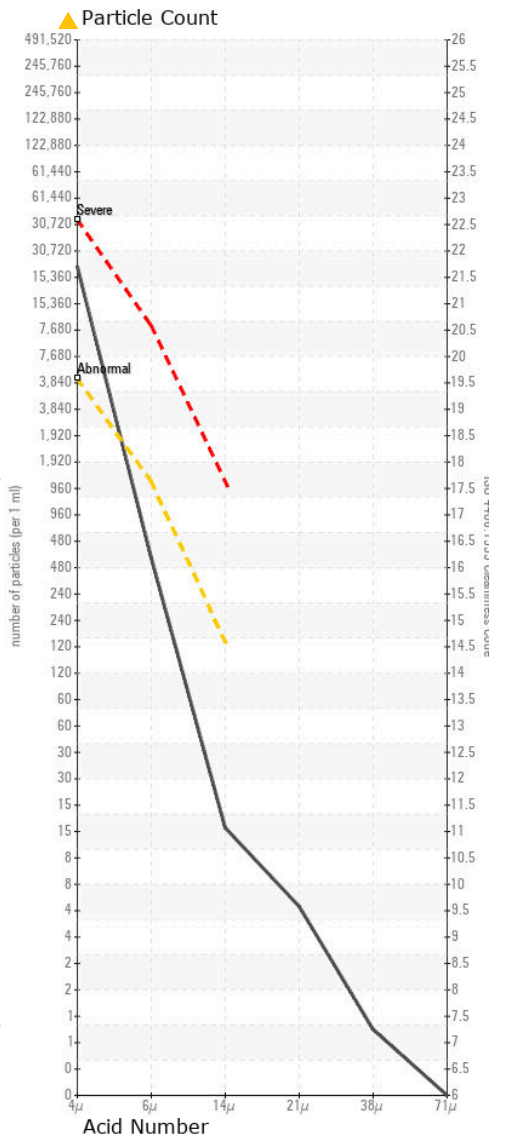
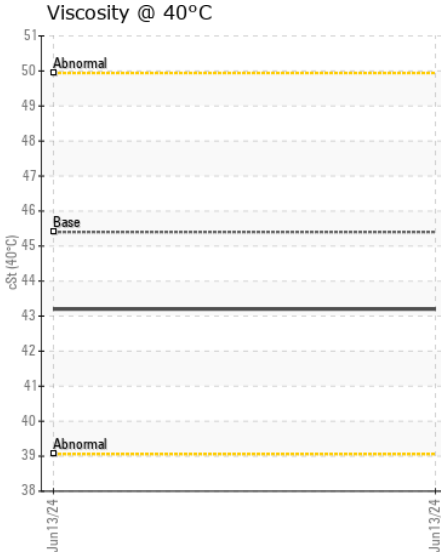
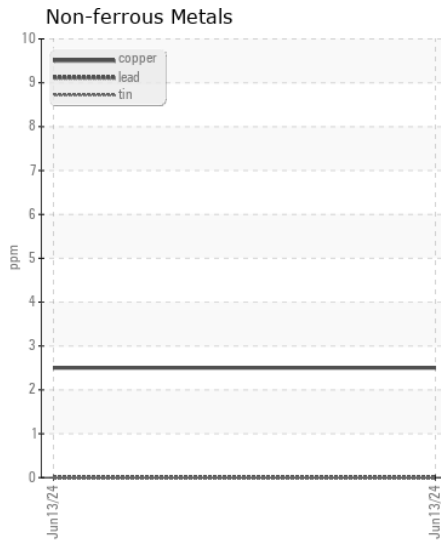
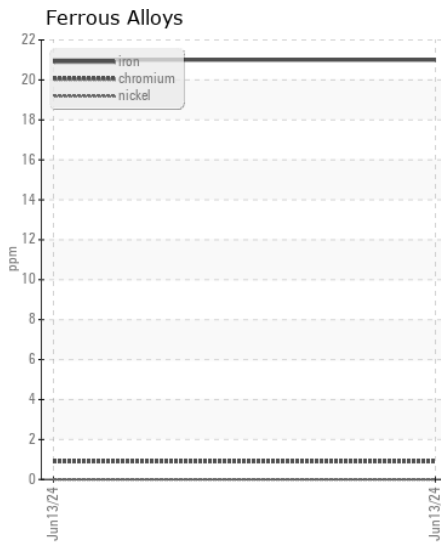
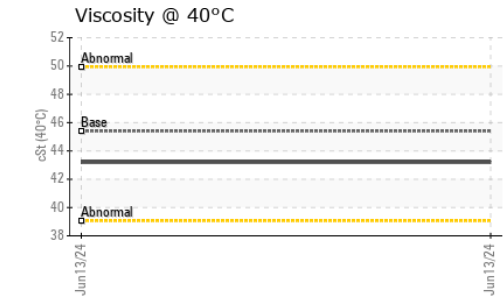
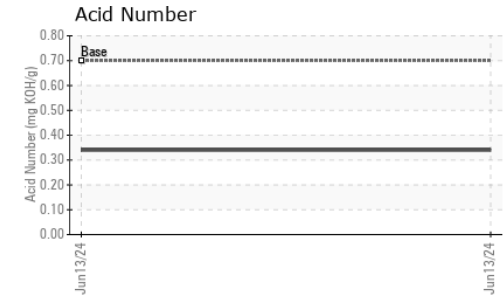
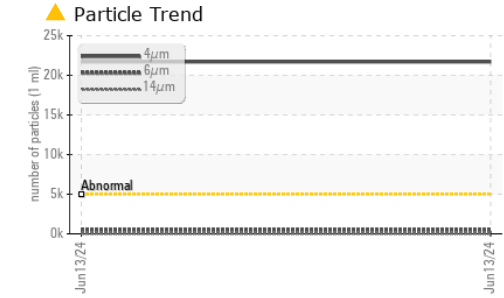
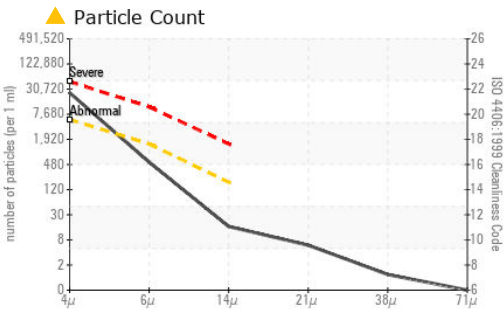
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

|                  |        |              |           |                   |     |     |
|------------------|--------|--------------|-----------|-------------------|-----|-----|
| Silicon          | ppm    | ASTM D5185m  | >20       | <b>4</b>          | --- | --- |
| Potassium        | ppm    | ASTM D5185m  | >20       | <b>2</b>          | --- | --- |
| Water            |        | WC Method    | >0.1      | <b>NEG</b>        | --- | --- |
| Particles >4µm   |        | ASTM D7647   | >5000     | <b>▲ 21702</b>    | --- | --- |
| Particles >6µm   |        | ASTM D7647   | >1300     | <b>479</b>        | --- | --- |
| Particles >14µm  |        | ASTM D7647   | >160      | <b>14</b>         | --- | --- |
| Particles >21µm  |        | ASTM D7647   | >40       | <b>5</b>          | --- | --- |
| Particles >38µm  |        | ASTM D7647   | >10       | <b>1</b>          | --- | --- |
| Particles >71µm  |        | ASTM D7647   | >3        | <b>0</b>          | --- | --- |
| Oil Cleanliness  |        | ISO 4406 (c) | >19/17/14 | <b>▲ 22/16/11</b> | --- | --- |
| Silt             | scalar | *Visual      | NONE      | <b>NONE</b>       | --- | --- |
| Debris           | scalar | *Visual      | NONE      | <b>NONE</b>       | --- | --- |
| Sand/Dirt        | scalar | *Visual      | NONE      | <b>NONE</b>       | --- | --- |
| Appearance       | scalar | *Visual      | NORML     | <b>NORML</b>      | --- | --- |
| Odor             | scalar | *Visual      | NORML     | <b>NORML</b>      | --- | --- |
| Emulsified Water | scalar | *Visual      | >0.1      | <b>NEG</b>        | --- | --- |

**FLUID CONDITION**

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

|                  |          |             |      |              |     |     |
|------------------|----------|-------------|------|--------------|-----|-----|
| Sodium           | ppm      | ASTM D5185m |      | <b>4</b>     | --- | --- |
| Boron            | ppm      | ASTM D5185m | 0    | <b>0</b>     | --- | --- |
| Barium           | ppm      | ASTM D5185m | 0    | <b>0</b>     | --- | --- |
| Molybdenum       | ppm      | ASTM D5185m | 0    | <b>1</b>     | --- | --- |
| Manganese        | ppm      | ASTM D5185m | 1    | <b>&lt;1</b> | --- | --- |
| Magnesium        | ppm      | ASTM D5185m | 0    | <b>10</b>    | --- | --- |
| Calcium          | ppm      | ASTM D5185m | 50   | <b>149</b>   | --- | --- |
| Phosphorus       | ppm      | ASTM D5185m | 330  | <b>368</b>   | --- | --- |
| Zinc             | ppm      | ASTM D5185m | 430  | <b>448</b>   | --- | --- |
| Sulfur           | ppm      | ASTM D5185m | 760  | <b>1132</b>  | --- | --- |
| Acid Number (AN) | mg KOH/g | ASTM D8045  | 0.70 | <b>0.34</b>  | --- | --- |
| Visc @ 40°C      | cSt      | ASTM D445   | 45.4 | <b>43.2</b>  | --- | --- |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0122829 **Received** : 25 Jun 2024  
**Lab Number** : 06220357 **Tested** : 26 Jun 2024  
**Unique Number** : 11098554 **Diagnosed** : 27 Jun 2024 - Doug Bogart  
**Test Package** : FLEET ( Additional Tests: PrtCount )

**GFL Environmental - 837 - Harrison TS**  
 22820 S State Route 291  
 Harrisonville, MO  
 US 64701  
 Contact: JEREMY BROWN  
 jeremyb@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)

T:  
F: