



Machine Id  
**911038**  
Component  
**Tank Hydraulic System**  
Fluid  
**PETRO CANADA HYDREX MV 32 (200 LTR)**

### RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. The filter change at the time of sampling has been noted. Resample in 30-45 days to monitor this situation.

| Test           | UOM | Method      | Limit/Abn | Current            | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|----------|----------|
| Sample Number  |     | Client Info |           | <b>GFL0059103</b>  | ---      | ---      |
| Sample Date    |     | Client Info |           | <b>12 Feb 2024</b> | ---      | ---      |
| Machine Age    | hrs | Client Info |           | <b>0</b>           | ---      | ---      |
| Oil Age        | hrs | Client Info |           | <b>2400</b>        | ---      | ---      |
| Filter Age     | hrs | Client Info |           | <b>2400</b>        | ---      | ---      |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | ---      | ---      |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | ---      | ---      |
| Sample Status  |     |             |           | <b>SEVERE</b>      | ---      | ---      |

### WEAR

All component wear rates are normal.

|              |        |               |      |              |     |     |
|--------------|--------|---------------|------|--------------|-----|-----|
| Iron         | ppm    | ASTM D5185(m) | >50  | <b>35</b>    | --- | --- |
| Chromium     | ppm    | ASTM D5185(m) | >10  | <b>4</b>     | --- | --- |
| Nickel       | ppm    | ASTM D5185(m) | >4   | <b>0</b>     | --- | --- |
| Titanium     | ppm    | ASTM D5185(m) |      | <b>0</b>     | --- | --- |
| Silver       | ppm    | ASTM D5185(m) |      | <b>0</b>     | --- | --- |
| Aluminum     | ppm    | ASTM D5185(m) | >5   | <b>3</b>     | --- | --- |
| Lead         | ppm    | ASTM D5185(m) | >4   | <b>&lt;1</b> | --- | --- |
| Copper       | ppm    | ASTM D5185(m) | >15  | <b>&lt;1</b> | --- | --- |
| Tin          | ppm    | ASTM D5185(m) | >4   | <b>0</b>     | --- | --- |
| Vanadium     | ppm    | ASTM D5185(m) |      | <b>0</b>     | --- | --- |
| White Metal  | scalar | Visual*       | NONE | <b>NONE</b>  | --- | --- |
| Yellow Metal | scalar | Visual*       | NONE | <b>NONE</b>  | --- | --- |

### CONTAMINATION

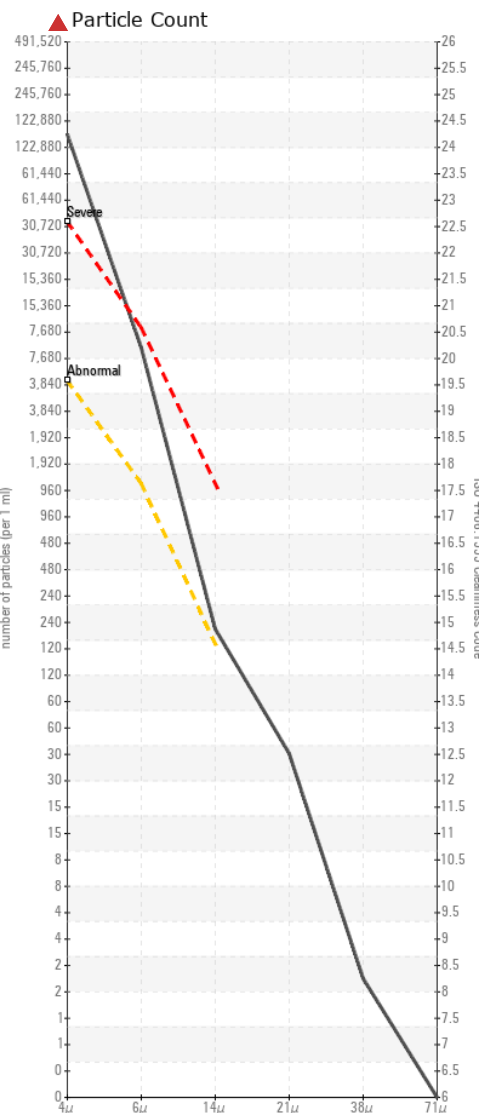
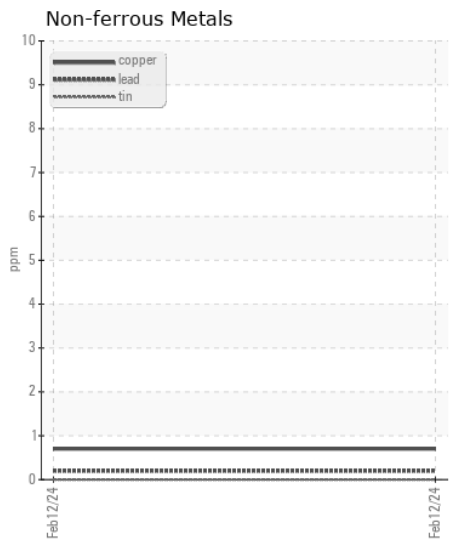
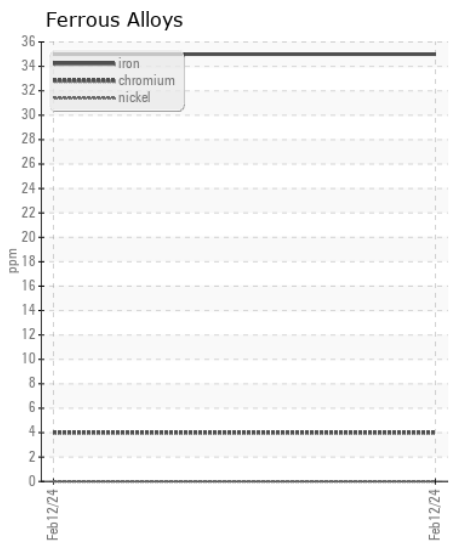
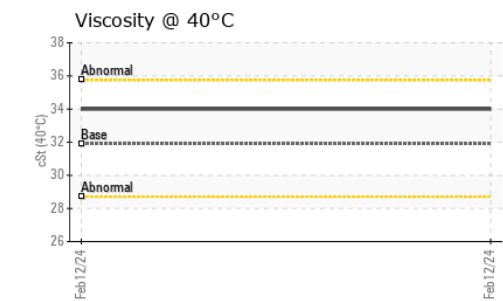
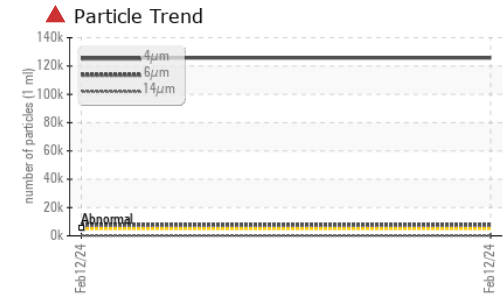
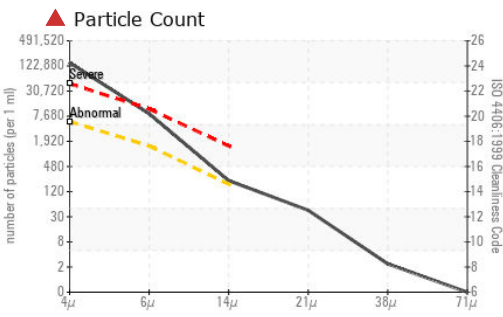
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

|                  |        |               |           |                   |     |     |
|------------------|--------|---------------|-----------|-------------------|-----|-----|
| Silicon          | ppm    | ASTM D5185(m) | >15       | <b>9</b>          | --- | --- |
| Potassium        | ppm    | ASTM D5185(m) | >20       | <b>2</b>          | --- | --- |
| Water            |        | WC Method     | >0.1      | <b>NEG</b>        | --- | --- |
| Particles >4µm   |        | ASTM D7647    | >5000     | <b>▲ 125730</b>   | --- | --- |
| Particles >6µm   |        | ASTM D7647    | >1300     | <b>▲ 7698</b>     | --- | --- |
| Particles >14µm  |        | ASTM D7647    | >160      | <b>● 194</b>      | --- | --- |
| Particles >21µm  |        | ASTM D7647    | >40       | <b>38</b>         | --- | --- |
| Particles >38µm  |        | ASTM D7647    | >10       | <b>2</b>          | --- | --- |
| Particles >71µm  |        | ASTM D7647    | >3        | <b>0</b>          | --- | --- |
| Oil Cleanliness  |        | ISO 4406 (c)  | >19/17/14 | <b>▲ 24/20/15</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 oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

|             |     |               |      |             |     |     |
|-------------|-----|---------------|------|-------------|-----|-----|
| Sodium      | ppm | ASTM D5185(m) |      | <b>9</b>    | --- | --- |
| Boron       | ppm | ASTM D5185(m) | 0    | <b>0</b>    | --- | --- |
| Barium      | ppm | ASTM D5185(m) | 0    | <b>0</b>    | --- | --- |
| Molybdenum  | ppm | ASTM D5185(m) | 0    | <b>0</b>    | --- | --- |
| Manganese   | ppm | ASTM D5185(m) | 1    | <b>0</b>    | --- | --- |
| Magnesium   | ppm | ASTM D5185(m) | 0    | <b>6</b>    | --- | --- |
| Calcium     | ppm | ASTM D5185(m) | 50   | <b>69</b>   | --- | --- |
| Phosphorus  | ppm | ASTM D5185(m) | 330  | <b>337</b>  | --- | --- |
| Zinc        | ppm | ASTM D5185(m) | 430  | <b>419</b>  | --- | --- |
| Sulfur      | ppm | ASTM D5185(m) | 760  | <b>847</b>  | --- | --- |
| Visc @ 40°C | cSt | ASTM D7279(m) | 31.9 | <b>34.0</b> | --- | --- |



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0059103 **Received** : 04 Mar 2024  
**Lab Number** : 02619593 **Tested** : 05 Mar 2024  
**Unique Number** : 5736703 **Diagnosed** : 05 Mar 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: PrtCount )

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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.