

Machine Id
519005
Component
Hydraulic System
Fluid
PETRO CANADA HYDREX AW 32 (--- LTR)

RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. We advise that you check for visible metal particles in the oil. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. 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. Resample in 30-45 days to monitor this situation.

WEAR

Light concentration of visible metal present. Cylinder wear is indicated.

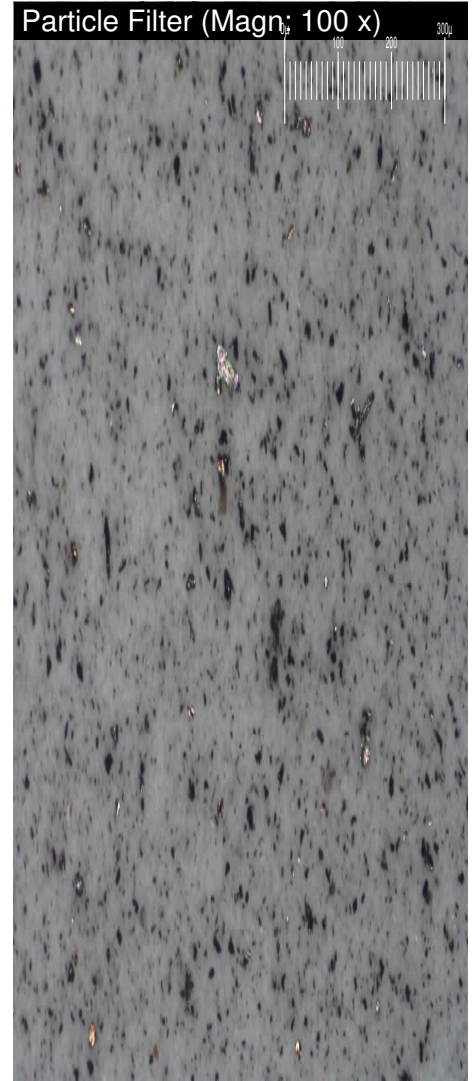
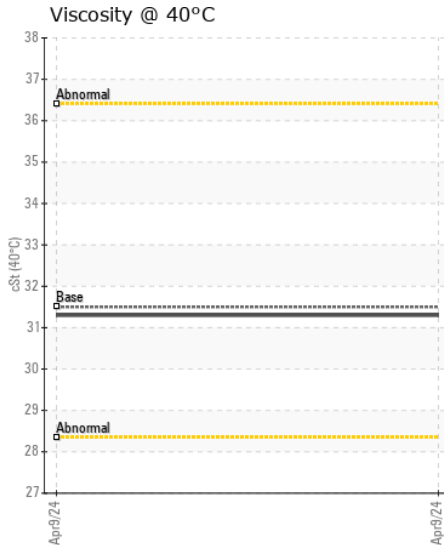
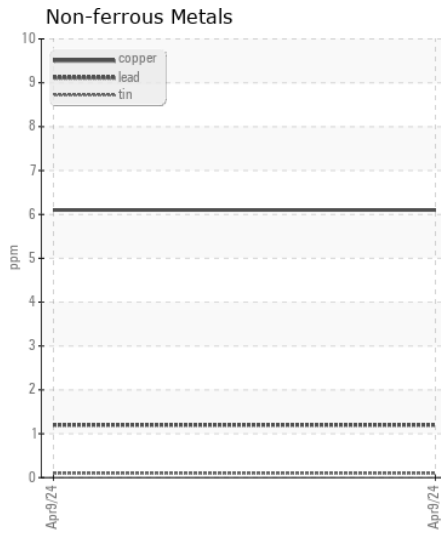
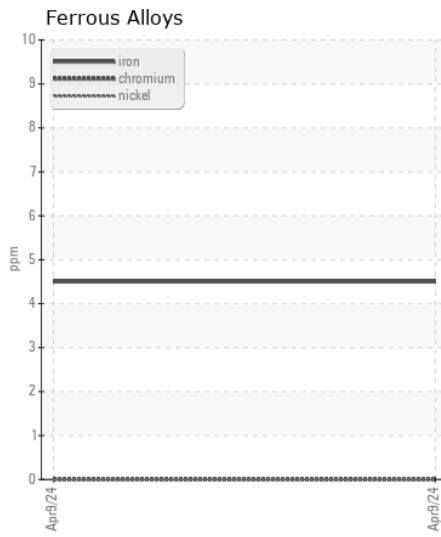
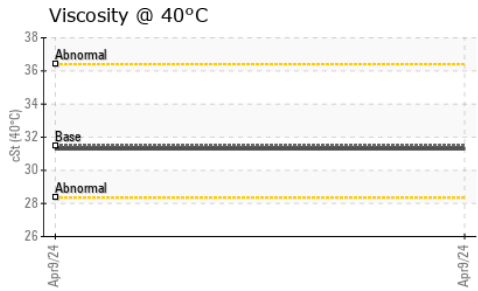
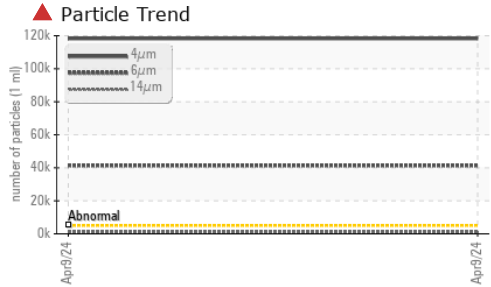
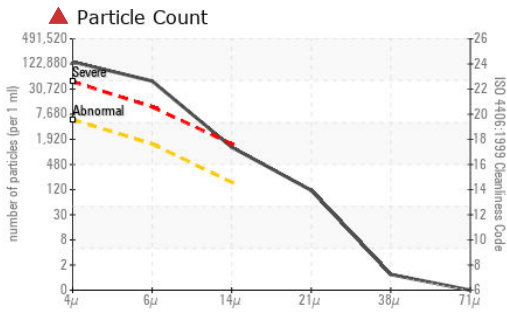
CONTAMINATION

There is a high amount of particulates (2 to 100 microns in size) present in the oil.

FLUID CONDITION

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|------------------|--------|---------------|-----------|--------------------|----------|----------|
| Sample Number | | Client Info | | GFL0107901 | --- | --- |
| Sample Date | | Client Info | | 09 Apr 2024 | --- | --- |
| Machine Age | hrs | Client Info | | 0 | --- | --- |
| Oil Age | hrs | Client Info | | 0 | --- | --- |
| Filter Age | hrs | Client Info | | 0 | --- | --- |
| Oil Changed | | Client Info | | Not Changd | --- | --- |
| Filter Changed | | Client Info | | N/A | --- | --- |
| Sample Status | | | | SEVERE | --- | --- |
| Iron | ppm | ASTM D5185(m) | >20 | 4 | --- | --- |
| Chromium | ppm | ASTM D5185(m) | >10 | 0 | --- | --- |
| Nickel | ppm | ASTM D5185(m) | >10 | 0 | --- | --- |
| Titanium | ppm | ASTM D5185(m) | | 0 | --- | --- |
| Silver | ppm | ASTM D5185(m) | | <1 | --- | --- |
| Aluminum | ppm | ASTM D5185(m) | >10 | 0 | --- | --- |
| Lead | ppm | ASTM D5185(m) | >10 | 1 | --- | --- |
| Copper | ppm | ASTM D5185(m) | >75 | 6 | --- | --- |
| Tin | ppm | ASTM D5185(m) | >10 | <1 | --- | --- |
| Vanadium | ppm | ASTM D5185(m) | | 0 | --- | --- |
| White Metal | scalar | Visual* | NONE | ▲ VLITE | --- | --- |
| Yellow Metal | scalar | Visual* | NONE | NONE | --- | --- |
| Silicon | ppm | ASTM D5185(m) | >20 | 0 | --- | --- |
| Potassium | ppm | ASTM D5185(m) | >20 | 0 | --- | --- |
| Water | | WC Method | >0.1 | NEG | --- | --- |
| Particles >4µm | | ASTM D7647 | >5000 | ▲ 118271 | --- | --- |
| Particles >6µm | | ASTM D7647 | >1300 | ▲ 41372 | --- | --- |
| Particles >14µm | | ASTM D7647 | >160 | ▲ 1090 | --- | --- |
| Particles >21µm | | ASTM D7647 | >40 | ▲ 102 | --- | --- |
| Particles >38µm | | ASTM D7647 | >10 | 1 | --- | --- |
| Particles >71µm | | ASTM D7647 | >3 | 0 | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | ▲ 24/23/17 | --- | --- |
| Silt | scalar | Visual* | NONE | VLITE | --- | --- |
| Debris | scalar | Visual* | NONE | NONE | --- | --- |
| Sand/Dirt | scalar | Visual* | NONE | NONE | --- | --- |
| Appearance | scalar | Visual* | NORML | NORML | --- | --- |
| Odor | scalar | Visual* | NORML | NORML | --- | --- |
| Emulsified Water | scalar | Visual* | >0.1 | NEG | --- | --- |
| Sodium | ppm | ASTM D5185(m) | | 0 | --- | --- |
| Boron | ppm | ASTM D5185(m) | 0 | <1 | --- | --- |
| Barium | ppm | ASTM D5185(m) | 0 | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185(m) | 0 | 0 | --- | --- |
| Manganese | ppm | ASTM D5185(m) | 0 | 0 | --- | --- |
| Magnesium | ppm | ASTM D5185(m) | 0 | 1 | --- | --- |
| Calcium | ppm | ASTM D5185(m) | 50 | 55 | --- | --- |
| Phosphorus | ppm | ASTM D5185(m) | 330 | 250 | --- | --- |
| Zinc | ppm | ASTM D5185(m) | 430 | 323 | --- | --- |
| Sulfur | ppm | ASTM D5185(m) | 760 | 2519 | --- | --- |
| Visc @ 40°C | cSt | ASTM D7279(m) | 31.5 | 31.3 | --- | --- |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 310 - Winnipeg**
Sample No. : GFL0107901 **Received** : 19 Apr 2024 #360 – 555 Hervo Street,
Lab Number : 02630239 **Tested** : 22 Apr 2024 Winnipeg, MB
Unique Number : 5763371 **Diagnosed** : 22 Apr 2024 - Kevin Marson CA R3T 3L6
Test Package : MOB 1 (Additional Tests: Bottom, BottomAnalysis, FilterPatch, PrtCount, PrtFilter) **Contact:** Joshua Lourenco
 jlourenco@gflenv.com

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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 F: