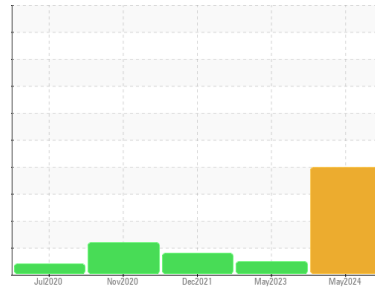




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
OR342
Component
Hydraulic System
Fluid
PETRO CANADA HYDREX AW 46 (--- GAL)

DIAGNOSIS

▲ Recommendation

We advise that you check all areas where contaminants can enter the system. The oil change at the time of sampling has been noted. 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

All component wear rates are normal.

▲ Contamination

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

Fluid Condition

The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | GFL0113393 | GFL0056403 | GFL0030495 |
| Sample Date | Client Info | | 22 May 2024 | 31 May 2023 | 02 Dec 2021 |
| Machine Age | hrs | Client Info | 19943 | 19943 | 17348 |
| Oil Age | hrs | Client Info | 500 | 2000 | 500 |
| Oil Changed | Client Info | | Changed | Changed | Not Changed |
| Sample Status | | | SEVERE | NORMAL | ABNORMAL |

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) >20 | 6 | 2 | 2 |
| Chromium | ppm | ASTM D5185(m) >10 | 0 | <1 | <1 |
| Nickel | ppm | ASTM D5185(m) >10 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185(m) >10 | 0 | <1 | <1 |
| Lead | ppm | ASTM D5185(m) >10 | 0 | <1 | 0 |
| Copper | ppm | ASTM D5185(m) >75 | <1 | <1 | <1 |
| Tin | ppm | ASTM D5185(m) >10 | 0 | 0 | 0 |
| Antimony | ppm | ASTM D5185(m) | 0 | <1 | 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 | <1 | 0 | <1 |
| Barium | ppm | ASTM D5185(m) 0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) 0 | 0 | <1 | 1 |
| Manganese | ppm | ASTM D5185(m) 0 | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185(m) 0 | 4 | 8 | 17 |
| Calcium | ppm | ASTM D5185(m) 50 | 99 | 118 | 120 |
| Phosphorus | ppm | ASTM D5185(m) 330 | 587 | 690 | 633 |
| Zinc | ppm | ASTM D5185(m) 430 | 798 | 823 | 797 |
| Sulfur | ppm | ASTM D5185(m) 760 | 1429 | 1558 | 1432 |
| Lithium | ppm | ASTM D5185(m) | <1 | <1 | <1 |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|-------------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185(m) >20 | 0 | 1 | <1 |
| Sodium | ppm | ASTM D5185(m) | <1 | <1 | 0 |
| Potassium | ppm | ASTM D5185(m) >20 | 1 | <1 | <1 |

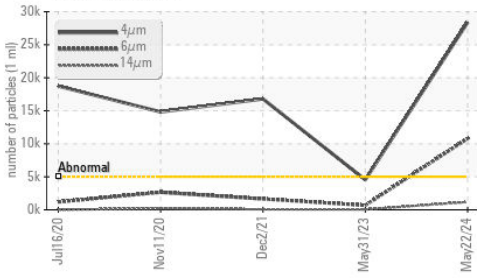
FLUID CLEANLINESS

| | method | limit/base | current | history1 | history2 |
|-----------------|--------------|------------|-------------------|----------|------------|
| Particles >4µm | ASTM D7647 | >5000 | ▲ 28372 | 4547 | ▲ 16798 |
| Particles >6µm | ASTM D7647 | >1300 | ▲ 10789 | 682 | ● 1650 |
| Particles >14µm | ASTM D7647 | >160 | ▲ 1183 | 42 | 70 |
| Particles >21µm | ASTM D7647 | >40 | ▲ 274 | 7 | 14 |
| Particles >38µm | ASTM D7647 | >10 | 7 | 0 | 0 |
| Particles >71µm | ASTM D7647 | >3 | 1 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >19/17/14 | ▲ 22/21/17 | 19/17/13 | ▲ 21/18/13 |

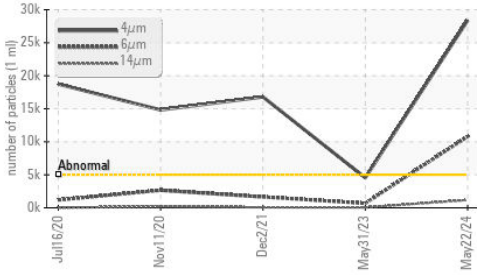


OIL ANALYSIS REPORT

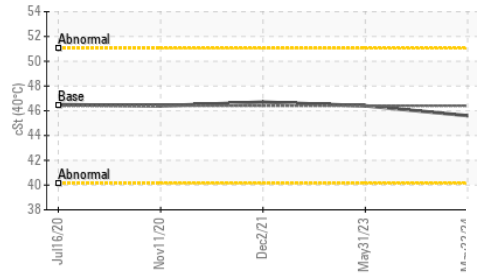
▲ Particle Trend



▲ Particle Trend



Viscosity @ 40°C



| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | Visual* | NONE | NONE | NONE |
| Yellow Metal | scalar | Visual* | NONE | NONE | NONE |
| Precipitate | scalar | Visual* | NONE | NONE | NONE |
| Silt | scalar | Visual* | NONE | NONE | NONE |
| Debris | scalar | Visual* | NONE | NONE | NONE |
| Sand/Dirt | scalar | Visual* | NONE | NONE | NONE |
| Appearance | scalar | Visual* | NORML | NORML | NORML |
| Odor | scalar | Visual* | NORML | NORML | NORML |
| Emulsified Water | scalar | Visual* | >0.1 | NEG | NEG |
| Free Water | scalar | Visual* | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|---------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D7279(m) | 46.4 | 45.6 | 46.4 |

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

Color

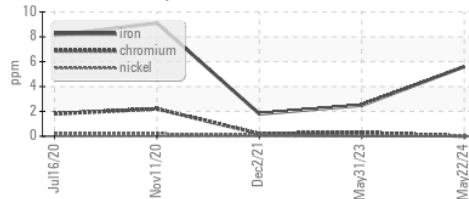


Bottom

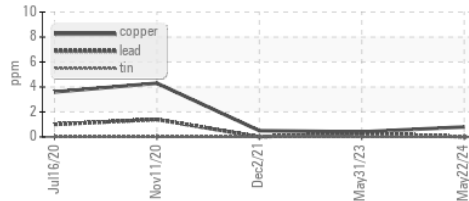


GRAPHS

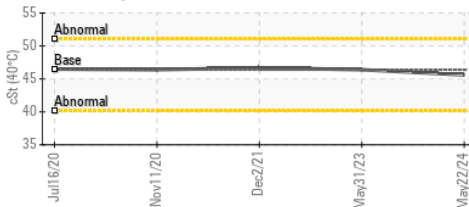
Ferrous Alloys



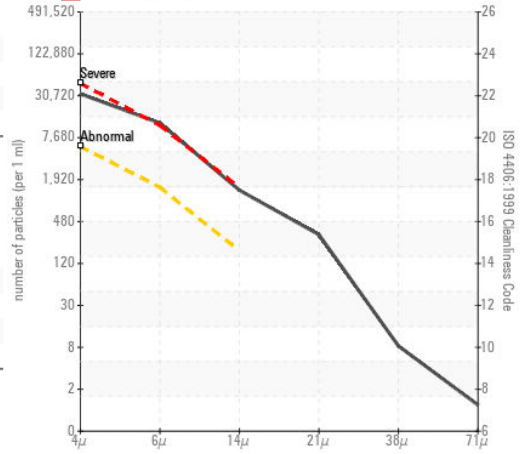
Non-ferrous Metals



Viscosity @ 40°C



▲ Particle Count



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0113393
Lab Number : 02637210
Unique Number : 5786372
Test Package : MOB 1 (Additional Tests : PrtCount)

GFL Environmental - 720 - Lafleche - Landfill
 17125 Lafleche Road,
 Moose Creek, ON
 CA K0C 1W0
 Contact: Charles Bergeron
 cbergeron@gflenv.com
 T: (613)538-4853
 F:

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.