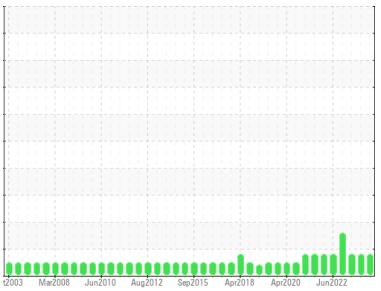
# OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
## PRESS #7 (S/N MP-45441)
Component
**Hydraulic System**
Fluid
**PETRO CANADA HYDREX AW 68 (2000 GAL)**

## DIAGNOSIS

**Recommendation**

Resample at the next service interval to monitor. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using Advanced Oil Monitoring (AOM) kits for this system. The AOM test package includes advanced level testing to determine the suitability of turbine and large industrial compressor oils for continued use.

**Wear**

Copper ppm levels are noted. All other component wear rates are normal.

**Contamination**

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

**Fluid Condition**

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service (unconfirmed).

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **PC0087728** | PC0076126 | PC0076129 |
| Sample Date | | Client Info | | **11 Jun 2024** | 30 Nov 2023 | 02 Jun 2023 |
| Machine Age | yrs | Client Info | | **0** | 0 | 0 |
| Oil Age | yrs | Client Info | | **0** | 0 | 0 |
| Oil Changed | | Client Info | | **N/A** | N/A | N/A |
| Sample Status | | | | **ATTENTION** | ATTENTION | ATTENTION |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Water | | WC Method | >0.05 | **NEG** | NEG | NEG |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| PQ | | ASTM D8184* | | **0** | 0 | 0 |
| Iron | ppm | ASTM D5185(m) | >20 | **46** | 39 | 35 |
| Chromium | ppm | ASTM D5185(m) | >20 | **1** | <1 | <1 |
| Nickel | ppm | ASTM D5185(m) | >20 | **<1** | <1 | <1 |
| Titanium | ppm | ASTM D5185(m) | | **0** | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | | **0** | <1 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >20 | **8** | 8 | 8 |
| Lead | ppm | ASTM D5185(m) | >20 | **8** | 9 | 8 |
| Copper | ppm | ASTM D5185(m) | >20 | **72** | 80 | 77 |
| Tin | ppm | ASTM D5185(m) | >20 | **<1** | 1 | 1 |
| Antimony | ppm | ASTM D5185(m) | | **0** | 0 | <1 |
| 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** | <1 | <1 |
| Barium | ppm | ASTM D5185(m) | 0 | **<1** | <1 | <1 |
| Molybdenum | ppm | ASTM D5185(m) | 0 | **0** | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) | 0 | **1** | <1 | 1 |
| Magnesium | ppm | ASTM D5185(m) | 0 | **54** | 59 | 60 |
| Calcium | ppm | ASTM D5185(m) | 50 | **93** | 100 | 103 |
| Phosphorus | ppm | ASTM D5185(m) | 330 | **557** | 563 | 588 |
| Zinc | ppm | ASTM D5185(m) | 430 | **509** | 527 | 511 |
| Sulfur | ppm | ASTM D5185(m) | 760 | **1786** | 1816 | 1791 |
| Lithium | ppm | ASTM D5185(m) | | **<1** | <1 | <1 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185(m) | >15 | **2** | 3 | 3 |
| Sodium | ppm | ASTM D5185(m) | | **3** | 4 | 4 |
| Potassium | ppm | ASTM D5185(m) | >20 | **1** | 0 | <1 |

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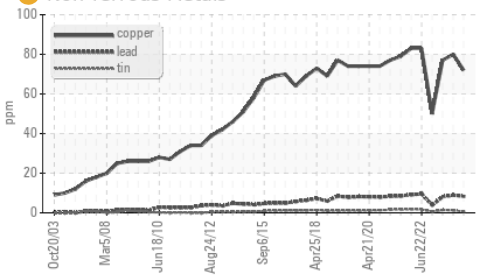
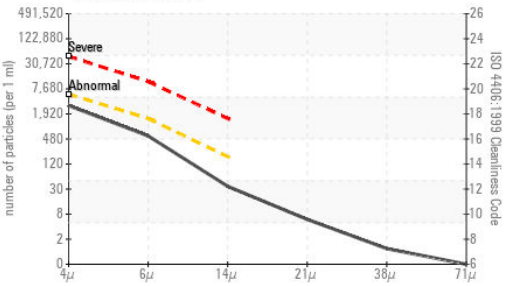
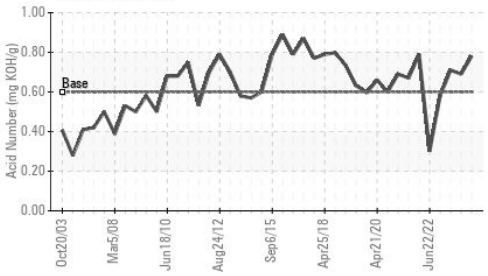
Non-ferrous Metals



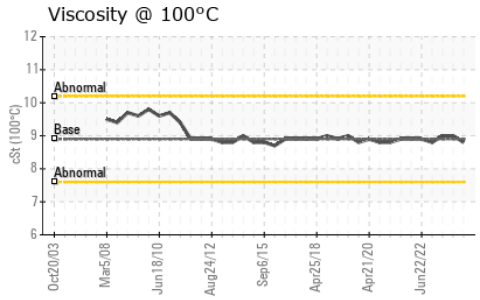

Particle Count



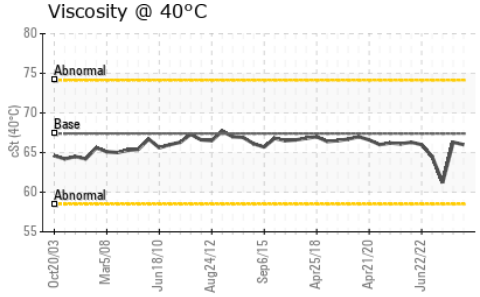

Acid Number




Viscosity @ 100°C




Viscosity @ 40°C

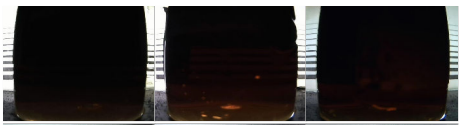



| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >5000 | **2667** | 3304 | 4387 |
| Particles >6µm | | ASTM D7647 | >1300 | **499** | 672 | 779 |
| Particles >14µm | | ASTM D7647 | >160 | **31** | 48 | 47 |
| Particles >21µm | | ASTM D7647 | >40 | **5** | 12 | 8 |
| Particles >38µm | | ASTM D7647 | >10 | **1** | 1 | 0 |
| Particles >71µm | | ASTM D7647 | >3 | **0** | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | **19/16/12** | 19/17/13 | 19/17/13 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D974* | 0.60 | **0.78** | 0.69 | 0.71 |

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | Visual* | NONE | **NONE** | 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** | NONE | NONE |
| Appearance | scalar | Visual* | NORML | **NORML** | NORML | NORML |
| Odor | scalar | Visual* | NORML | **NORML** | NORML | NORML |
| Emulsified Water | scalar | Visual* | >0.05 | **NEG** | NEG | NEG |
| Free Water | scalar | Visual* | | **NEG** | NEG | NEG |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D7279(m) | 67.4 | **66.0** | 66.3 | 61.2 |
| Visc @ 100°C | cSt | ASTM D7279(m) | 8.9 | **8.8** | 9 | 9 |
| Viscosity Index (VI) | Scale | ASTM D2270* | 105 | **106** | 110 | 123 |

| SAMPLE IMAGES | | | | | | |
|---|---|---|---|---|---|---|
| Color | | | |  | | |
| Bottom | | | |  | | |

CALA
ISO 17025:2017 Accredited Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
**Sample No.** : PC0087728 **Received** : 11 Jun 2024
**Lab Number** : 02641145 **Tested** : 12 Jun 2024
**Unique Number** : 5798684 **Diagnosed** : 12 Jun 2024 - Kevin Marson
**Test Package** : IND 2 ( Additional Tests: KV100, PQ, VI )

*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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