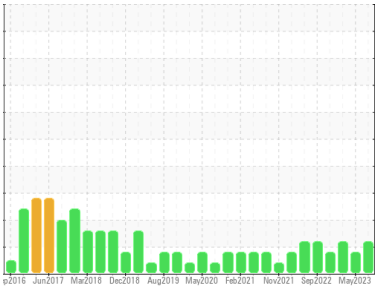
# PROBLEM SUMMARY

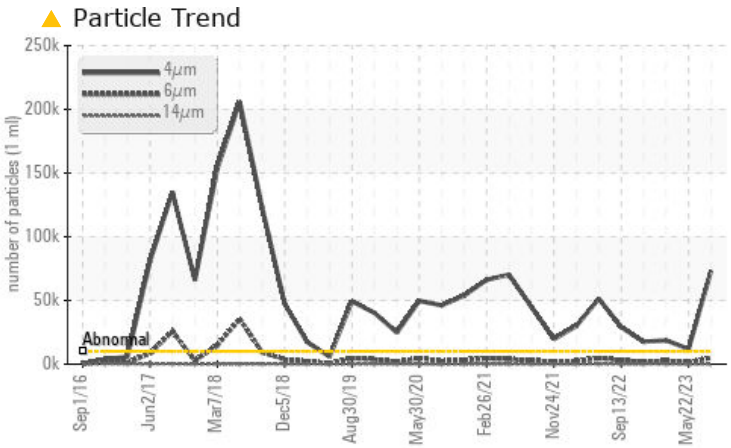
Sample Rating Trend



ISO

Area
**RP-101**
Machine Id
**B57008 - LOW LEVEL FEED SCREW**
Component
**Gearbox**
Fluid
**PETRO CANADA PURITY FG EP GEAR FLUID 460 (--- QTS)**

## COMPONENT CONDITION SUMMARY




## RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

| Sample Status | | | | ABNORMAL | ATTENTION | ATTENTION |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >10000 | ▲ **73153** | ▲ 11886 | ▲ 18655 |
| Particles >6µm | | ASTM D7647 | >2500 | ▲ **5020** | 1279 | ▲ 2585 |
| Oil Cleanliness | | ISO 4406 (c) | >20/18/15 | ▲ **23/20/14** | ▲ 21/17/12 | ▲ 21/19/14 |

**Customer Id:** HORAUS
**Sample No.:** WC06029351
**Lab Number:** 06029351
**Test Package:** IND 2

*To manage this report scan the QR code*

*To discuss the diagnosis or test data:*
Don Baldridge +1
don.b505@comcast.net

*To change component or sample information:*
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

## RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---|---|---|---|---|
| Change Filter | --- | --- | ? | We recommend you service the filters on this component if applicable. |

## HISTORICAL DIAGNOSIS

**22 May 2023 Diag: Jonathan Hester**

ISO

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of silt (particulates < 6 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

**22 Feb 2023 Diag: Don Baldridge**

ISO

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of silt (particulates < 6 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

**29 Nov 2022 Diag: Don Baldridge**

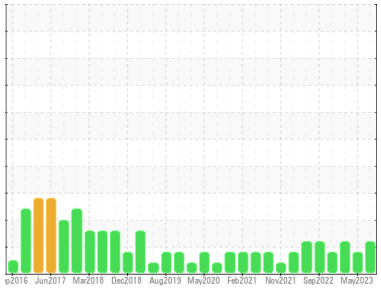
ISO

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of silt (particulates < 6 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

# OIL ANALYSIS REPORT

Sample Rating Trend



ISO

Area
**RP-101**
Machine Id
**B57008 - LOW LEVEL FEED SCREW**
Component
**Gearbox**
Fluid
**PETRO CANADA PURITY FG EP GEAR FLUID 460 (--- QTS)**

## DIAGNOSIS

**Recommendation**
We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

**Wear**
All component wear rates are normal.

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

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

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **WC06029351** | WC0781516 | WC0755355 |
| Sample Date | | Client Info | | **02 Dec 2023** | 22 May 2023 | 22 Feb 2023 |
| Machine Age | mls | Client Info | | **0** | 0 | 0 |
| Oil Age | mls | Client Info | | **0** | 0 | 0 |
| Oil Changed | | Client Info | | **N/A** | N/A | N/A |
| Sample Status | | | | **ABNORMAL** | ATTENTION | ATTENTION |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Water | | WC Method | >0.2 | **NEG** | NEG | NEG |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >200 | **4** | 9 | 8 |
| Chromium | ppm | ASTM D5185m | >15 | **<1** | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >15 | **0** | <1 | 0 |
| Titanium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Silver | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | **1** | 0 | 0 |
| Lead | ppm | ASTM D5185m | >100 | **0** | 0 | 0 |
| Copper | ppm | ASTM D5185m | >200 | **1** | 2 | <1 |
| Tin | ppm | ASTM D5185m | >25 | **0** | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **17** | 20 | 19 |
| Barium | ppm | ASTM D5185m | | **3** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | **0** | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | **<1** | <1 | 0 |
| Calcium | ppm | ASTM D5185m | | **<1** | 2 | 1 |
| Phosphorus | ppm | ASTM D5185m | 135 | **376** | 346 | 351 |
| Zinc | ppm | ASTM D5185m | | **23** | 11 | 1 |
| Sulfur | ppm | ASTM D5185m | 660 | **5155** | 5088 | 4665 |

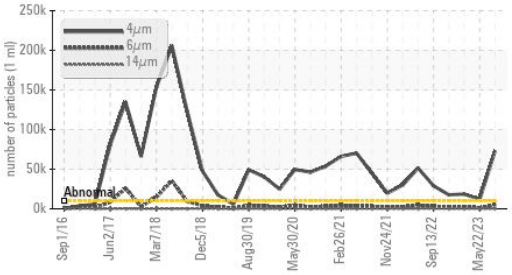
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >50 | **<1** | <1 | 2 |
| Sodium | ppm | ASTM D5185m | | **0** | 1 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | **2** | 2 | <1 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >10000 | ▲ **73153** | ▲ 11886 | ▲ 18655 |
| Particles >6µm | | ASTM D7647 | >2500 | ▲ **5020** | 1279 | ▲ 2585 |
| Particles >14µm | | ASTM D7647 | >320 | **120** | 30 | 134 |
| Particles >21µm | | ASTM D7647 | >80 | **49** | 7 | 36 |
| Particles >38µm | | ASTM D7647 | >20 | **4** | 1 | 2 |
| Particles >71µm | | ASTM D7647 | >4 | **1** | 1 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >20/18/15 | ▲ **23/20/14** | ▲ 21/17/12 | ▲ 21/19/14 |

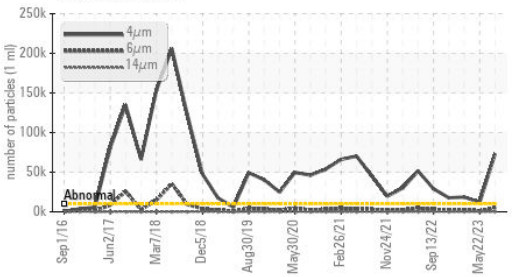
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.54 | **1.24** | 1.63 | 1.32 |

# OIL ANALYSIS REPORT

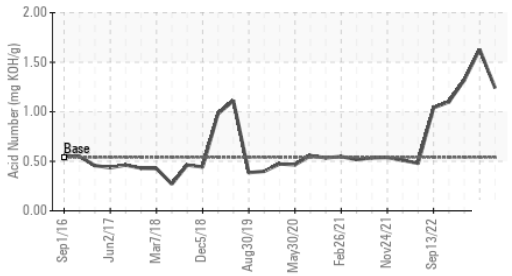
Particle Trend



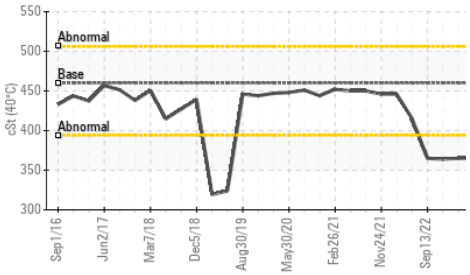

Particle Trend




Acid Number

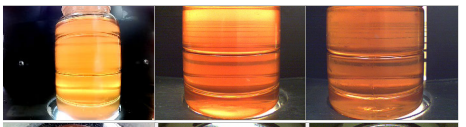
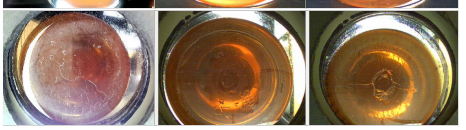



Viscosity @ 40°C



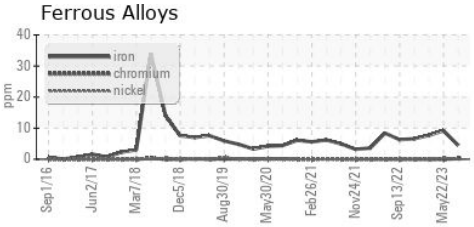

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| 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 | >0.2 | **NEG** | NEG | NEG |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 460 | **344** | 365 | 365 |

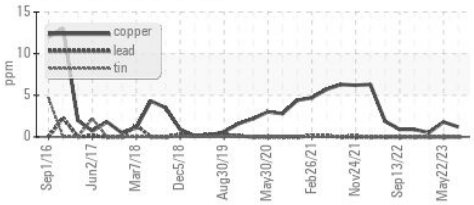
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | | |
| Bottom | | |  | | |

## GRAPHS

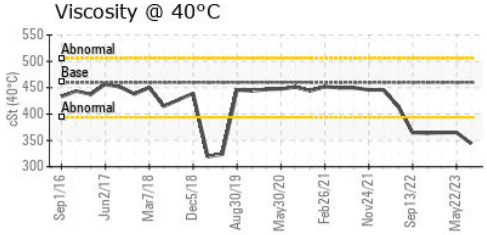
Ferrous Alloys



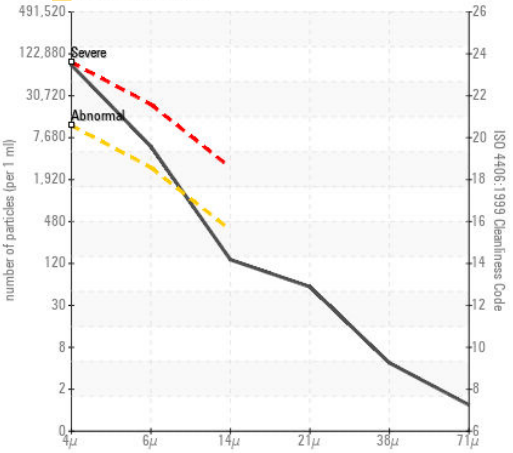

Non-ferrous Metals



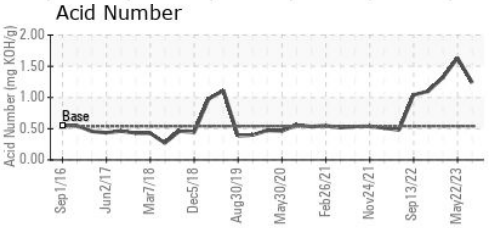

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : WC06029351 **Received** : 08 Dec 2023
**Lab Number** : 06029351 **Diagnosed** : 11 Dec 2023
**Unique Number** : 10779142 **Diagnostician** : Don Baldridge
**Test Package** : IND 2 ( Additional Tests: PrtCount )

*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)*


**HORMEL FOODS - AUSTIN**
1101 NORTH MAIN ST
AUSTIN, MN
US 55912
Contact: RYAN LOWE
rslowe@hormel.com
T: (507)437-5674
F: (507)437-9805