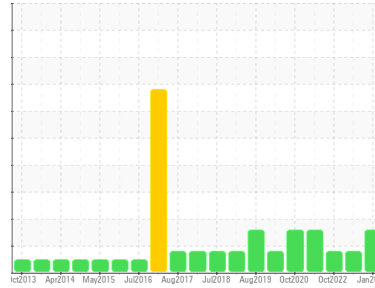


# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Area  
**LINE 6 [908197567]**  
 Machine Id  
**[LINE 6] L6 WRAPPER 18 L6 WRAPPER 18**  
 Component  
**Gearbox**  
 Fluid  
**PETRO CANADA PURITY FG EP GEAR OIL 220 (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### ▲ Wear

The aluminum level is abnormal. All other component wear rates are normal.

### ▲ Contamination

Appearance is milky. There is no indication of any contamination in the oil.

### Fluid Condition

Confirm oil type. 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 |             | <b>PCA0111069</b>  | PCA0080343  | PCA0078596  |
| Sample Date   | Client Info |             | <b>31 Jan 2024</b> | 02 Dec 2022 | 04 Oct 2022 |
| Machine Age   | hrs         | Client Info | <b>3000</b>        | 0           | 0           |
| Oil Age       | hrs         | Client Info | <b>0</b>           | 0           | 0           |
| Oil Changed   | Client Info |             | <b>N/A</b>         | N/A         | N/A         |
| Sample Status |             |             | <b>ABNORMAL</b>    | ABNORMAL    | ABNORMAL    |

## CONTAMINATION

|       | method    | limit/base | current    | history1 | history2 |
|-------|-----------|------------|------------|----------|----------|
| Water | WC Method | >0.2       | <b>NEG</b> | NEG      | NEG      |

## WEAR METALS

|          | method     | limit/base       | current      | history1     | history2     |
|----------|------------|------------------|--------------|--------------|--------------|
| PQ       | ASTM D8184 |                  | <b>55</b>    | 44           | 34           |
| Iron     | ppm        | ASTM D5185m >200 | <b>56</b>    | 49           | 45           |
| Chromium | ppm        | ASTM D5185m >15  | <b>&lt;1</b> | 1            | 1            |
| Nickel   | ppm        | ASTM D5185m >15  | <b>0</b>     | 0            | 0            |
| Titanium | ppm        | ASTM D5185m      | <b>0</b>     | <1           | <1           |
| Silver   | ppm        | ASTM D5185m      | <b>0</b>     | 0            | 0            |
| Aluminum | ppm        | ASTM D5185m >25  | <b>▲ 301</b> | <b>▲ 120</b> | <b>▲ 120</b> |
| Lead     | ppm        | ASTM D5185m >100 | <b>0</b>     | 1            | <1           |
| Copper   | ppm        | ASTM D5185m >200 | <b>8</b>     | 9            | 8            |
| Tin      | ppm        | ASTM D5185m >25  | <b>&lt;1</b> | 1            | 1            |
| Antimony | ppm        | ASTM D5185m >5   | <b>---</b>   | ---          | ---          |
| Vanadium | ppm        | ASTM D5185m      | <b>0</b>     | <1           | 0            |
| Cadmium  | ppm        | ASTM D5185m      | <b>0</b>     | <1           | <1           |

## ADDITIVES

|            | method | limit/base  | current     | history1 | history2 |
|------------|--------|-------------|-------------|----------|----------|
| Boron      | ppm    | ASTM D5185m | <b>0</b>    | 0        | 0        |
| Barium     | ppm    | ASTM D5185m | <b>22</b>   | 17       | 17       |
| Molybdenum | ppm    | ASTM D5185m | <b>0</b>    | <1       | 0        |
| Manganese  | ppm    | ASTM D5185m | <b>0</b>    | <1       | <1       |
| Magnesium  | ppm    | ASTM D5185m | <b>8</b>    | 12       | 11       |
| Calcium    | ppm    | ASTM D5185m | <b>4510</b> | 4610     | 4446     |
| Phosphorus | ppm    | ASTM D5185m | <b>549</b>  | 571      | 551      |
| Zinc       | ppm    | ASTM D5185m | <b>2049</b> | 1896     | 1791     |
| Sulfur     | ppm    | ASTM D5185m | <b>1745</b> | 1945     | 1944     |

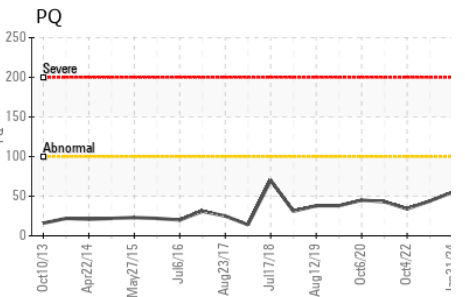
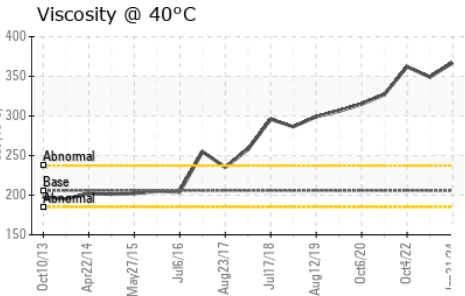
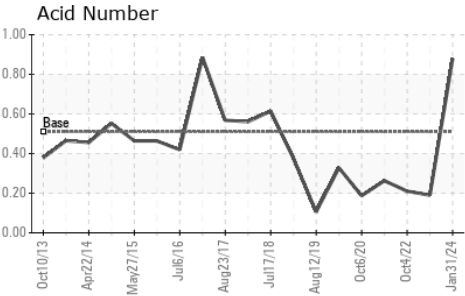
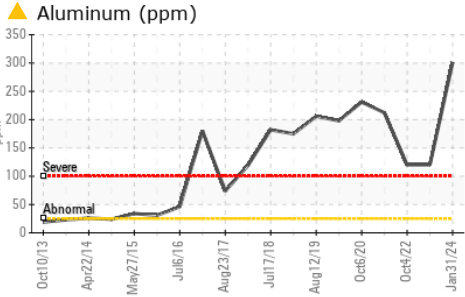
## CONTAMINANTS

|           | method | limit/base      | current   | history1 | history2 |
|-----------|--------|-----------------|-----------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >50 | <b>27</b> | 24       | 22       |
| Sodium    | ppm    | ASTM D5185m     | <b>2</b>  | 4        | 3        |
| Potassium | ppm    | ASTM D5185m >20 | <b>1</b>  | 0        | 0        |

## FLUID DEGRADATION

|                  | method   | limit/base      | current      | history1 | history2 |
|------------------|----------|-----------------|--------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.51 | <b>0.878</b> | 0.19     | 0.21     |

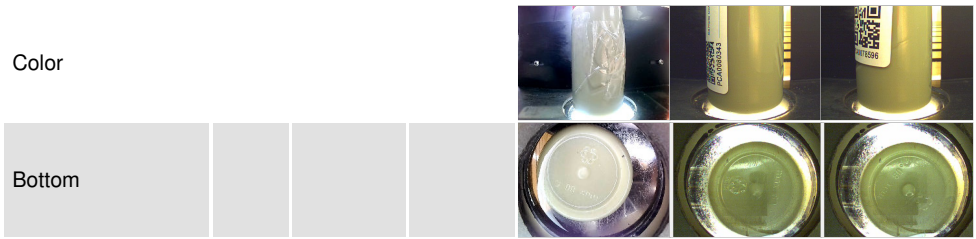
# OIL ANALYSIS REPORT



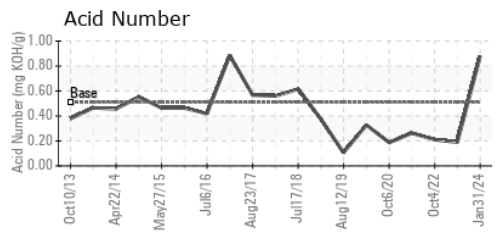
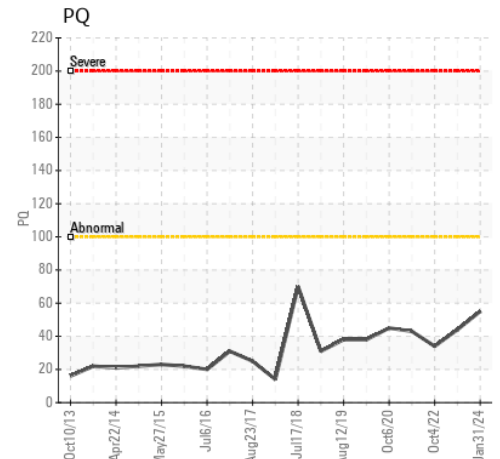
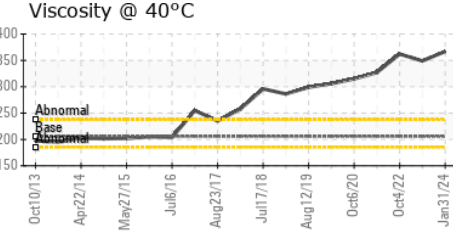
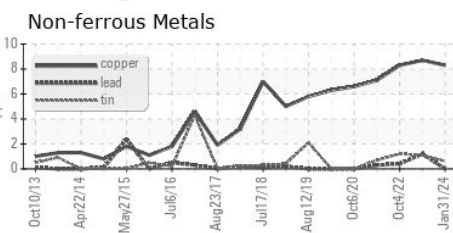
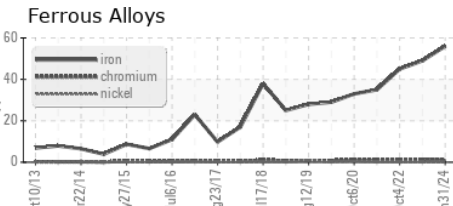
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| 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   | ▲ MILKY  | NORML    |
| Odor             | scalar | *Visual    | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual    | >0.2    | NEG      | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

| FLUID PROPERTIES | method | limit/base | current | history1   | history2 |     |
|------------------|--------|------------|---------|------------|----------|-----|
| Visc @ 40°C      | cSt    | ASTM D445  | 205.8   | <b>367</b> | 349      | 362 |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0111069 **Received** : 07 Feb 2024  
**Lab Number** : **06082682** **Tested** : 08 Feb 2024  
**Unique Number** : 10870127 **Diagnosed** : 09 Feb 2024 - Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: PQ )

**THE HERSHEY COMPANY**  
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 HERSHEY, PA  
 US 17033  
 Contact: CLINTON ZOHNER  
 clintzohner@hersheys.com  
 T: (717)374-4846  
 F: (717)374-4594

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)