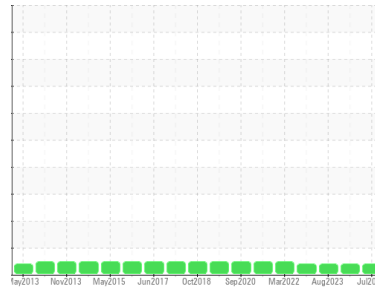


# OIL ANALYSIS REPORT

## Sample Rating Trend



## VISCOSITY



Area

**LINE 2**

Machine Id

**[LINE 2] PX-13031 PX-13031**

Component

**Hydraulic System**

Fluid

**PETRO CANADA PURITY FG HYDRAULIC AW 68 (--- QTS)**

## DIAGNOSIS

### Recommendation

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

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

### Fluid Condition

The oil viscosity is higher than normal. The AN level is acceptable for this fluid.

## SAMPLE INFORMATION

| method        | limit/base  | current            | history1    | history2    |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | <b>PCA0128280</b>  | PCA0128275  | PCA0100828  |
| Sample Date   | Client Info | <b>14 Jul 2024</b> | 13 Jul 2024 | 25 Aug 2023 |
| Machine Age   | hrs         | Client Info        | 0           | 4201        |
| Oil Age       | hrs         | Client Info        | 0           | 0           |
| Oil Changed   | Client Info | <b>N/A</b>         | N/A         | N/A         |
| Sample Status |             | <b>MARGINAL</b>    | MARGINAL    | MARGINAL    |

## CONTAMINATION

| method | limit/base | current         | history1   | history2 |     |
|--------|------------|-----------------|------------|----------|-----|
| Water  | WC Method  | <b>&gt;0.05</b> | <b>NEG</b> | NEG      | NEG |

## WEAR METALS

| method   | limit/base | current     | history1 | history2     |    |
|----------|------------|-------------|----------|--------------|----|
| PQ       | ASTM D8184 | <b>18</b>   | 17       | 8            |    |
| Iron     | ppm        | ASTM D5185m | >20      | <b>&lt;1</b> | <1 |
| Chromium | ppm        | ASTM D5185m | >20      | <b>0</b>     | <1 |
| Nickel   | ppm        | ASTM D5185m | >20      | <b>0</b>     | 0  |
| Titanium | ppm        | ASTM D5185m |          | <b>0</b>     | <1 |
| Silver   | ppm        | ASTM D5185m |          | <b>0</b>     | <1 |
| Aluminum | ppm        | ASTM D5185m | >20      | <b>0</b>     | 3  |
| Lead     | ppm        | ASTM D5185m | >20      | <b>0</b>     | 0  |
| Copper   | ppm        | ASTM D5185m | >20      | <b>1</b>     | 2  |
| Tin      | ppm        | ASTM D5185m | >20      | <b>0</b>     | 0  |
| Vanadium | ppm        | ASTM D5185m |          | <b>0</b>     | <1 |
| Cadmium  | ppm        | ASTM D5185m |          | <b>0</b>     | 0  |

## ADDITIVES

| method     | limit/base | current     | history1 | history2   |     |
|------------|------------|-------------|----------|------------|-----|
| Boron      | ppm        | ASTM D5185m |          | <b>0</b>   | 0   |
| Barium     | ppm        | ASTM D5185m |          | <b>0</b>   | <1  |
| Molybdenum | ppm        | ASTM D5185m |          | <b>0</b>   | 0   |
| Manganese  | ppm        | ASTM D5185m |          | <b>0</b>   | 0   |
| Magnesium  | ppm        | ASTM D5185m |          | <b>2</b>   | <1  |
| Calcium    | ppm        | ASTM D5185m |          | <b>2</b>   | 0   |
| Phosphorus | ppm        | ASTM D5185m |          | <b>442</b> | 447 |
| Zinc       | ppm        | ASTM D5185m |          | <b>7</b>   | 12  |
| Sulfur     | ppm        | ASTM D5185m |          | <b>631</b> | 610 |

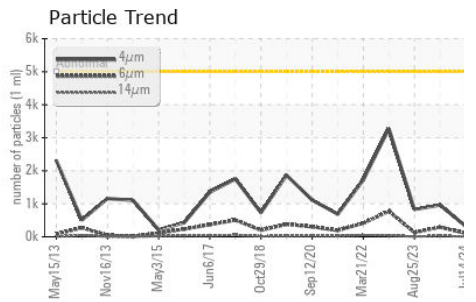
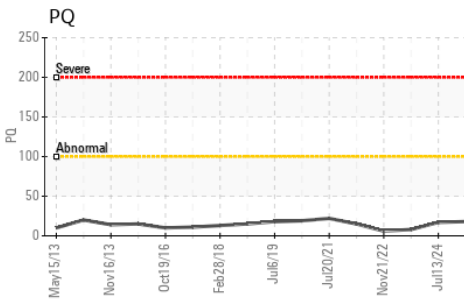
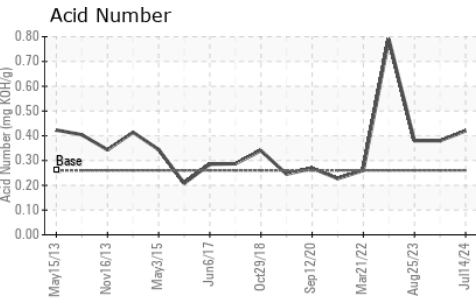
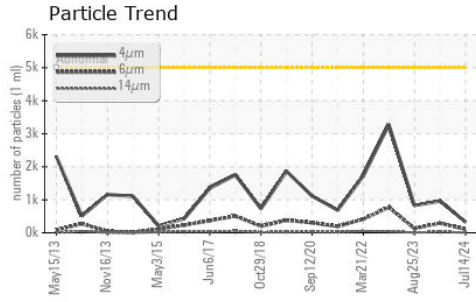
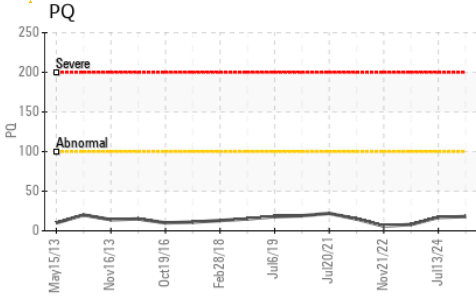
## CONTAMINANTS

| method    | limit/base | current     | history1 | history2 |   |
|-----------|------------|-------------|----------|----------|---|
| Silicon   | ppm        | ASTM D5185m | >15      | <b>3</b> | 2 |
| Sodium    | ppm        | ASTM D5185m |          | <b>1</b> | 0 |
| Potassium | ppm        | ASTM D5185m | >20      | <b>0</b> | 1 |

## FLUID CLEANLINESS

| method          | limit/base   | current   | history1        | history2 |          |
|-----------------|--------------|-----------|-----------------|----------|----------|
| Particles >4µm  | ASTM D7647   | >5000     | <b>324</b>      | 961      | 829      |
| Particles >6µm  | ASTM D7647   | >1300     | <b>110</b>      | 294      | 132      |
| Particles >14µm | ASTM D7647   | >160      | <b>5</b>        | 32       | 5        |
| Particles >21µm | ASTM D7647   | >40       | <b>0</b>        | 9        | 1        |
| Particles >38µm | ASTM D7647   | >10       | <b>0</b>        | 3        | 0        |
| Particles >71µm | ASTM D7647   | >3        | <b>0</b>        | 2        | 0        |
| Oil Cleanliness | ISO 4406 (c) | >19/17/14 | <b>16/14/10</b> | 17/15/12 | 17/14/10 |

# OIL ANALYSIS REPORT

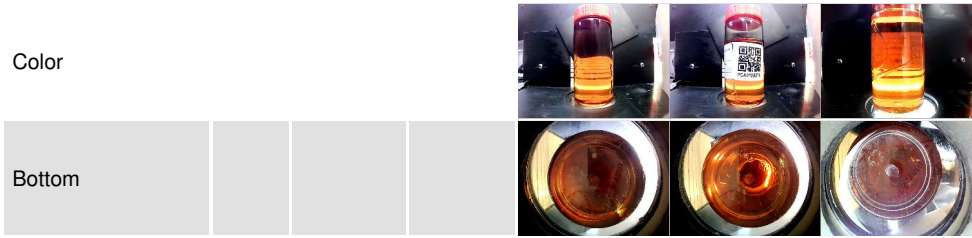


| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 | 0.26       | <b>0.42</b> | 0.38     | 0.38     |

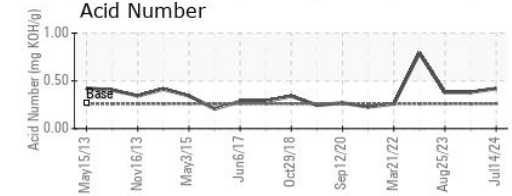
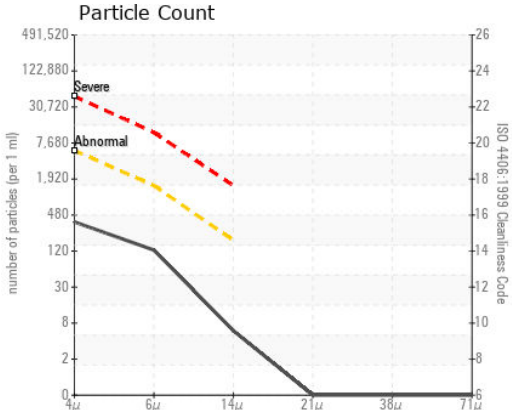
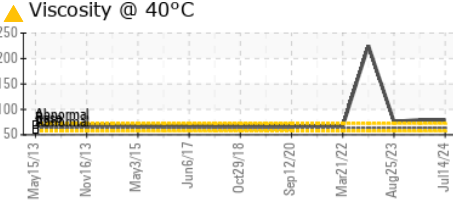
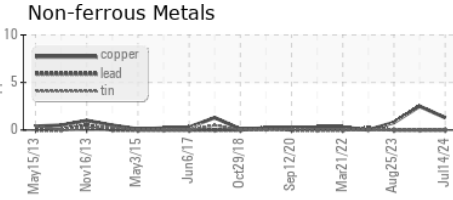
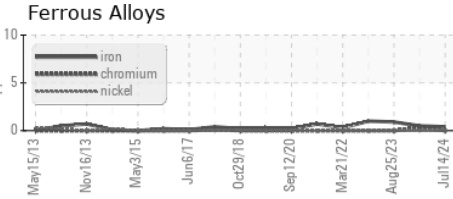
| VISUAL           |        | method  | limit/base | current      | history1 | history2 |
|------------------|--------|---------|------------|--------------|----------|----------|
| White Metal      | scalar | *Visual | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Precipitate      | scalar | *Visual | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Silt             | scalar | *Visual | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Debris           | scalar | *Visual | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Sand/Dirt        | scalar | *Visual | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Appearance       | scalar | *Visual | NORML      | <b>NORML</b> | NORML    | NORML    |
| Odor             | scalar | *Visual | NORML      | <b>NORML</b> | NORML    | NORML    |
| Emulsified Water | scalar | *Visual | >0.05      | <b>NEG</b>   | NEG      | NEG      |
| Free Water       | scalar | *Visual |            | <b>NEG</b>   | NEG      | NEG      |

| FLUID PROPERTIES |     | method    | limit/base | current       | history1 | history2 |
|------------------|-----|-----------|------------|---------------|----------|----------|
| Visc @ 40°C      | cSt | ASTM D445 | 63.34      | <b>▲ 78.4</b> | ▲ 79.5   | ▲ 75.93  |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0128280  
**Lab Number** : 06236222  
**Unique Number** : 11125056  
**Test Package** : IND 2 ( Additional Tests: PQ )

**Received** : 15 Jul 2024  
**Tested** : 19 Jul 2024  
**Diagnosed** : 19 Jul 2024 - Jonathan Hester

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