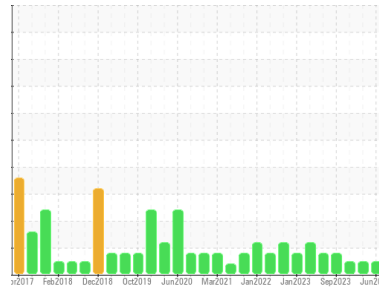




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**SPAM MFG**  
 Machine Id  
**B58891 - DODGE GEAR REDUCER DAY MIXER 4**  
 Component  
**Gearbox**  
 Fluid  
**PETRO CANADA PURITY FG EP GEAR OIL 220 (27 QTS)**

## DIAGNOSIS

### Recommendation

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 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>WC0943529</b>   | WC0894863   | WC0872377   |
| Sample Date   | Client Info |             | <b>12 Jun 2024</b> | 05 Mar 2024 | 18 Dec 2023 |
| Machine Age   | mths        | Client Info | <b>0</b>           | 0           | 0           |
| Oil Age       | mths        | Client Info | <b>0</b>           | 0           | 0           |
| Oil Changed   | Client Info |             | <b>N/A</b>         | N/A         | N/A         |
| Sample Status |             |             | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## WEAR METALS

|          | method | limit/base       | current   | history1 | history2 |
|----------|--------|------------------|-----------|----------|----------|
| Iron     | ppm    | ASTM D5185m >200 | <b>46</b> | 37       | 29       |
| Chromium | ppm    | ASTM D5185m >15  | <b>0</b>  | 0        | 0        |
| Nickel   | ppm    | ASTM D5185m >15  | <b>0</b>  | 0        | 0        |
| Titanium | ppm    | ASTM D5185m      | <b>0</b>  | 0        | <1       |
| Silver   | ppm    | ASTM D5185m      | <b>0</b>  | 0        | 0        |
| Aluminum | ppm    | ASTM D5185m >25  | <b>0</b>  | 0        | 0        |
| Lead     | ppm    | ASTM D5185m >100 | <b>0</b>  | 0        | 0        |
| Copper   | ppm    | ASTM D5185m >200 | <b>0</b>  | 0        | 0        |
| Tin      | ppm    | ASTM D5185m >25  | <b>0</b>  | <1       | 0        |
| Vanadium | ppm    | ASTM D5185m      | <b>0</b>  | 0        | 0        |
| Cadmium  | ppm    | ASTM D5185m      | <b>0</b>  | 0        | 0        |

## ADDITIVES

|            | method | limit/base  | current      | history1 | history2 |
|------------|--------|-------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m | <b>0</b>     | 0        | 0        |
| Barium     | ppm    | ASTM D5185m | <b>0</b>     | 0        | 0        |
| Molybdenum | ppm    | ASTM D5185m | <b>0</b>     | 0        | 0        |
| Manganese  | ppm    | ASTM D5185m | <b>&lt;1</b> | 0        | <1       |
| Magnesium  | ppm    | ASTM D5185m | <b>0</b>     | 0        | 0        |
| Calcium    | ppm    | ASTM D5185m | <b>3</b>     | 6        | 4        |
| Phosphorus | ppm    | ASTM D5185m | <b>459</b>   | 457      | 435      |
| Zinc       | ppm    | ASTM D5185m | <b>8</b>     | 1        | 7        |
| Sulfur     | ppm    | ASTM D5185m | <b>1419</b>  | 1225     | 1169     |

## CONTAMINANTS

|           | method | limit/base       | current      | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >50  | <b>1</b>     | 1        | 1        |
| Sodium    | ppm    | ASTM D5185m      | <b>2</b>     | <1       | <1       |
| Potassium | ppm    | ASTM D5185m >20  | <b>0</b>     | 0        | 0        |
| Water     | %      | ASTM D6304 >0.2  | <b>0.151</b> | 0.090    | 0.083    |
| ppm Water | ppm    | ASTM D6304 >2000 | <b>1510</b>  | 900      | 830      |

## FLUID CLEANLINESS

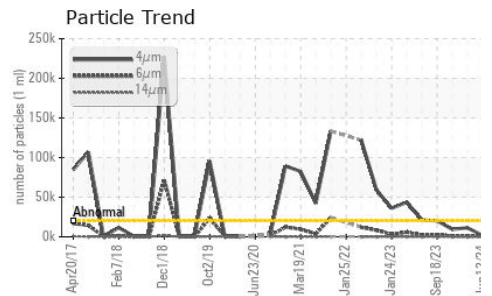
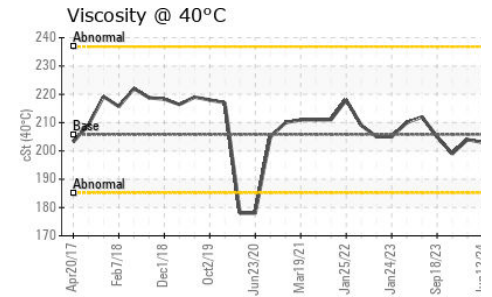
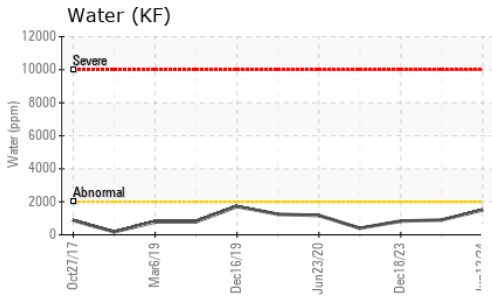
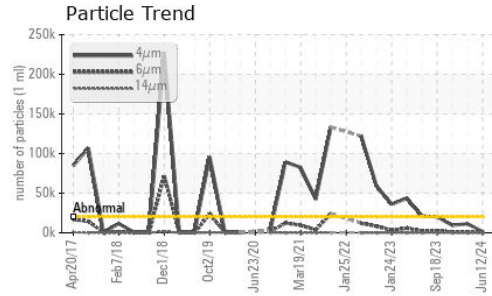
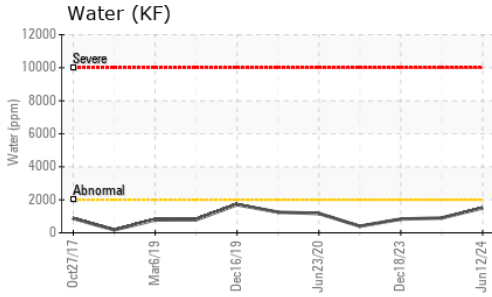
|                 | method       | limit/base | current         | history1 | history2 |
|-----------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm  | ASTM D7647   | >20000     | <b>1540</b>     | 11419    | 9409     |
| Particles >6µm  | ASTM D7647   | >5000      | <b>839</b>      | 1132     | 1004     |
| Particles >14µm | ASTM D7647   | >640       | <b>143</b>      | 10       | 15       |
| Particles >21µm | ASTM D7647   | >160       | <b>48</b>       | 2        | 5        |
| Particles >38µm | ASTM D7647   | >40        | <b>7</b>        | 0        | 1        |
| Particles >71µm | ASTM D7647   | >10        | <b>1</b>        | 0        | 1        |
| Oil Cleanliness | ISO 4406 (c) | >21/19/16  | <b>18/17/14</b> | 21/17/10 | 20/17/11 |

## FLUID DEGRADATION

|                  | method   | limit/base      | current     | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.51 | <b>0.68</b> | 0.71     | 0.69     |



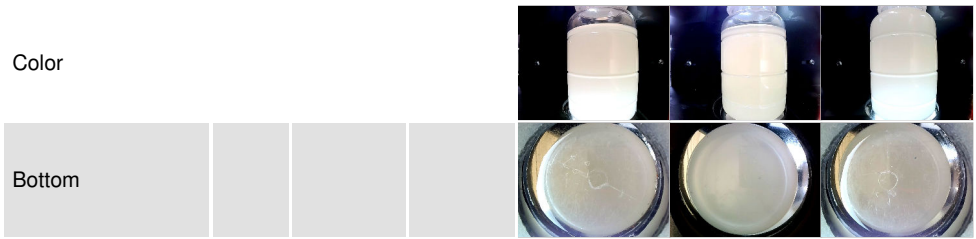
# OIL ANALYSIS REPORT



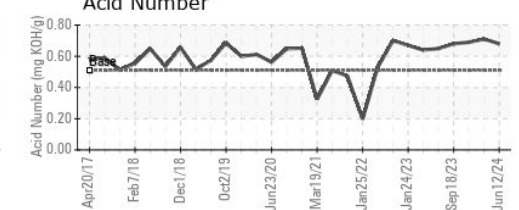
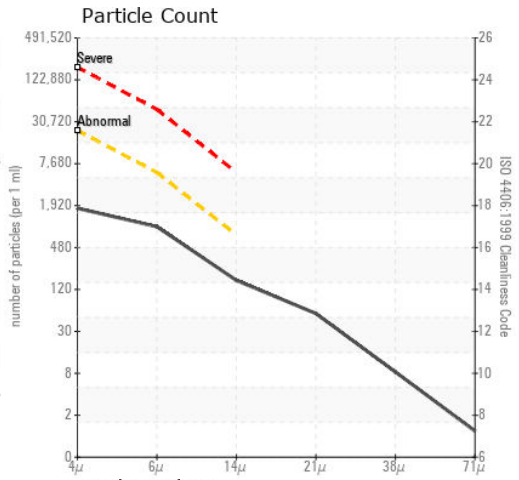
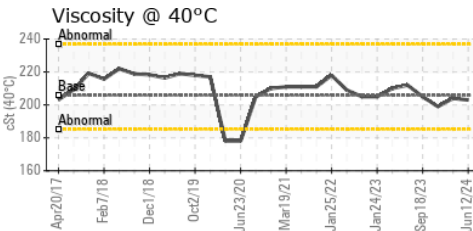
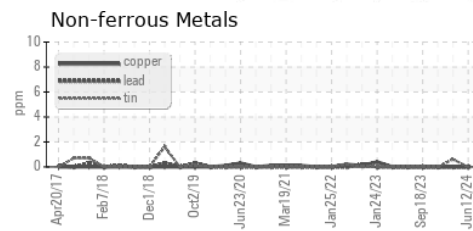
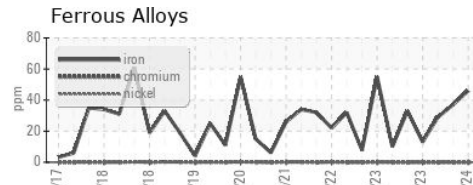
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
|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

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | 205.8   | 203      | 199      |

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



## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0943529 **Received** : 13 Jun 2024  
**Lab Number** : 06208694 **Tested** : 20 Jun 2024  
**Unique Number** : 11076155 **Diagnosed** : 20 Jun 2024 - Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**PROGRESSIVE PROCESSING INC**  
 1205 CHAVENELLE CT  
 DUBUQUE, IA  
 US 52002  
 Contact: BLAINE PURDY  
 bepurdy@hormel.com  
 T: (563)557-4500  
 F: (563)557-4508

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)