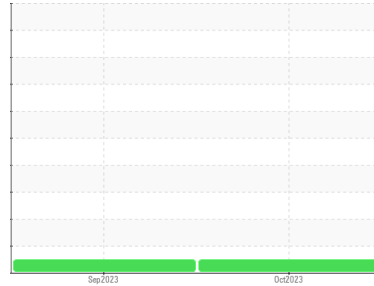


# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**48**

Component  
**Natural Gas Engine**

Fluid  
**PETRO CANADA SENTRON LD 3000 (--- GAL)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

### Wear

All component wear rates are normal.

### Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. 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>PCA0103458</b>  | PCA0092159  | ---      |
| Sample Date   | Client Info |             | <b>03 Oct 2023</b> | 05 Sep 2023 | ---      |
| Machine Age   | hrs         | Client Info | <b>94172</b>       | 93504       | ---      |
| Oil Age       | hrs         | Client Info | <b>1165</b>        | 497         | ---      |
| Oil Changed   |             | Client Info | <b>Not Chngd</b>   | Not Chngd   | ---      |
| Sample Status |             |             | <b>NORMAL</b>      | NORMAL      | ---      |

## WEAR METALS

|          | method | limit/base      | current      | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron     | ppm    | ASTM D5185m >50 | <b>2</b>     | 1        | ---      |
| Chromium | ppm    | ASTM D5185m >4  | <b>0</b>     | 0        | ---      |
| Nickel   | ppm    | ASTM D5185m >2  | <b>&lt;1</b> | 0        | ---      |
| Titanium | ppm    | ASTM D5185m     | <b>0</b>     | 0        | ---      |
| Silver   | ppm    | ASTM D5185m >3  | <b>0</b>     | 0        | ---      |
| Aluminum | ppm    | ASTM D5185m >9  | <b>0</b>     | <1       | ---      |
| Lead     | ppm    | ASTM D5185m >30 | <b>0</b>     | 0        | ---      |
| Copper   | ppm    | ASTM D5185m >35 | <b>&lt;1</b> | <1       | ---      |
| Tin      | ppm    | ASTM D5185m >4  | <b>&lt;1</b> | 0        | ---      |
| Vanadium | ppm    | ASTM D5185m     | <b>0</b>     | 0        | ---      |
| Cadmium  | ppm    | ASTM D5185m     | <b>0</b>     | 0        | ---      |

## ADDITIVES

|            | method | limit/base       | current      | history1 | history2 |
|------------|--------|------------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m 5    | <b>&lt;1</b> | 0        | ---      |
| Barium     | ppm    | ASTM D5185m 1    | <b>0</b>     | 0        | ---      |
| Molybdenum | ppm    | ASTM D5185m 2    | <b>2</b>     | <1       | ---      |
| Manganese  | ppm    | ASTM D5185m 1    | <b>0</b>     | <1       | ---      |
| Magnesium  | ppm    | ASTM D5185m 5    | <b>10</b>    | 10       | ---      |
| Calcium    | ppm    | ASTM D5185m 1220 | <b>1263</b>  | 1385     | ---      |
| Phosphorus | ppm    | ASTM D5185m 298  | <b>285</b>   | 300      | ---      |
| Zinc       | ppm    | ASTM D5185m 350  | <b>366</b>   | 358      | ---      |
| Sulfur     | ppm    | ASTM D5185m 1995 | <b>2837</b>  | 2927     | ---      |

## CONTAMINANTS

|           | method | limit/base        | current      | history1 | history2 |
|-----------|--------|-------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >+100 | <b>2</b>     | 2        | ---      |
| Sodium    | ppm    | ASTM D5185m       | <b>&lt;1</b> | 4        | ---      |
| Potassium | ppm    | ASTM D5185m >20   | <b>15</b>    | 16       | ---      |
| Fuel      | %      | ASTM D3524 >4.0   | <b>0.1</b>   | 0.3      | ---      |

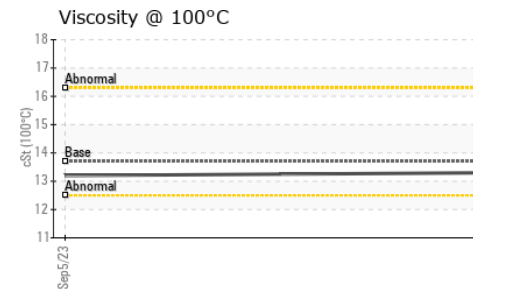
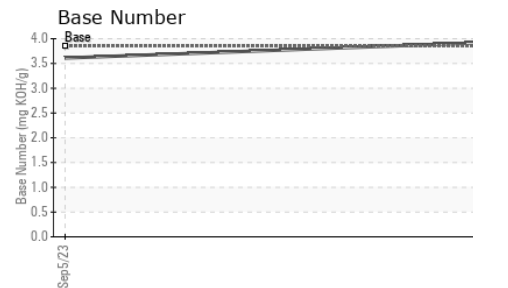
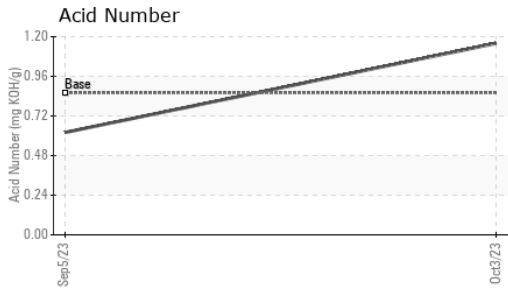
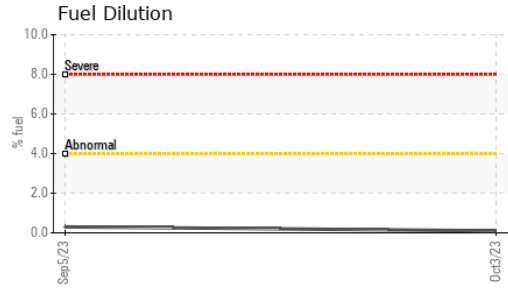
## INFRA-RED

|           | method   | limit/base      | current     | history1 | history2 |
|-----------|----------|-----------------|-------------|----------|----------|
| Soot %    | %        | *ASTM D7844     | <b>0</b>    | 0        | ---      |
| Nitration | Abs/cm   | *ASTM D7624 >20 | <b>5.1</b>  | 4.5      | ---      |
| Sulfation | Abs/.1mm | *ASTM D7415 >30 | <b>14.8</b> | 14.3     | ---      |

## FLUID DEGRADATION

|                  | method   | limit/base      | current     | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Oxidation        | Abs/.1mm | *ASTM D7414 >25 | <b>9.2</b>  | 8.4      | ---      |
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.86 | <b>1.16</b> | 0.62     | ---      |
| Base Number (BN) | mg KOH/g | ASTM D2896 3.85 | <b>3.93</b> | 3.61     | ---      |

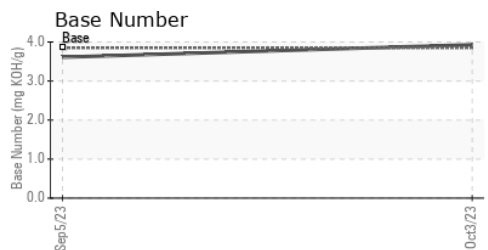
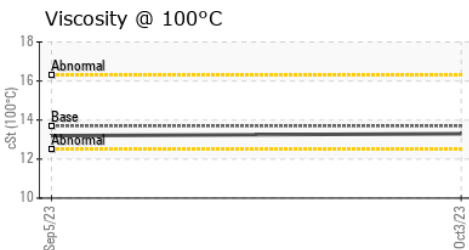
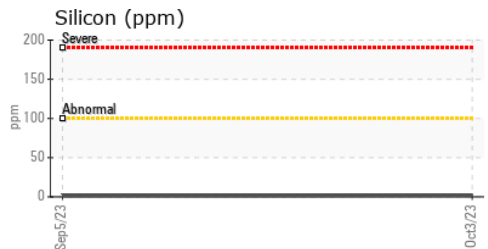
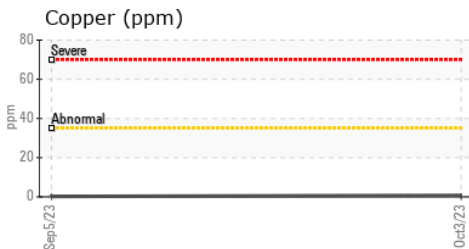
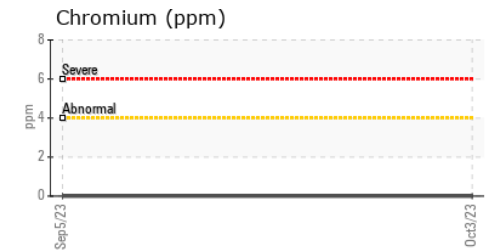
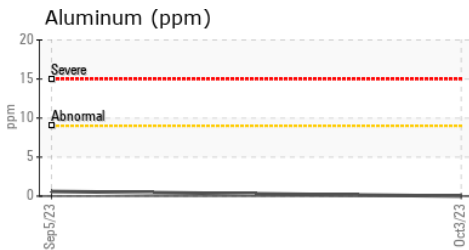
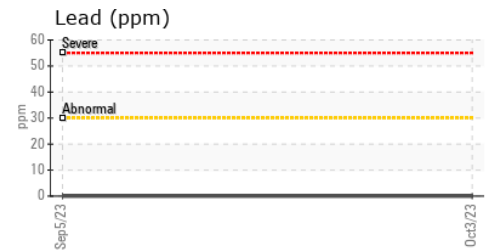
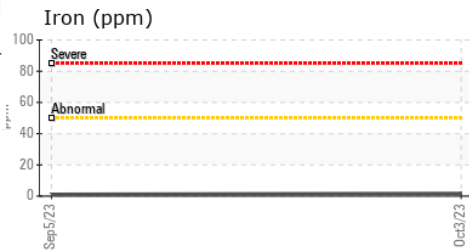
# OIL ANALYSIS REPORT



| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | ---      |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | ---      |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | ---      |
| Silt             | scalar | *Visual    | NONE    | NONE     | ---      |
| Debris           | scalar | *Visual    | NONE    | NONE     | ---      |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | ---      |
| Appearance       | scalar | *Visual    | NORML   | NORML    | ---      |
| Odor             | scalar | *Visual    | NORML   | NORML    | ---      |
| Emulsified Water | scalar | *Visual    | >0.1    | NEG      | ---      |
| Free Water       | scalar | *Visual    |         | NEG      | ---      |

| FLUID PROPERTIES | method | limit/base | current | history1    | history2 |
|------------------|--------|------------|---------|-------------|----------|
| Visc @ 100°C     | cSt    | ASTM D445  | 13.7    | <b>13.3</b> | 13.2     |

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0103458 **Received** : 12 Oct 2023  
**Lab Number** : **05977767** **Diagnosed** : 16 Oct 2023  
**Unique Number** : 10695062 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2 ( Additional Tests: FuelDilution, PercentFuel )

**ENERVEST OPERATING - POPLAR GAP A**  
 1618 CRESCENT ROAD  
 GRUNDY, VA  
 US 24614  
 Contact: Service Manager

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)

T:  
F: