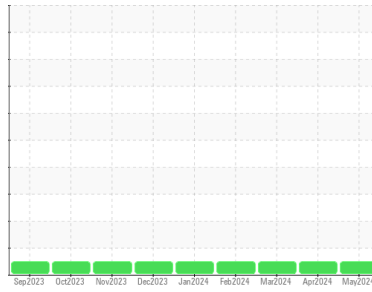


# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id

**41**  
Component  
**Natural Gas Engine**  
Fluid  
**PETRO CANADA SENTRON LD 3000 (--- GAL)**

## DIAGNOSIS

### Recommendation

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

Tests indicate that there is no fuel present in the oil. 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>PCA0111895</b>  | PCA0111990  | PCA0117176  |
| Sample Date   | Client Info |             | <b>02 May 2024</b> | 02 Apr 2024 | 05 Mar 2024 |
| Machine Age   | hrs         | Client Info | <b>103036</b>      | 102419      | 101731      |
| Oil Age       | hrs         | Client Info | <b>5532</b>        | 4915        | 4227        |
| Oil Changed   | Client Info |             | <b>Not Chngd</b>   | Not Chngd   | Not Chngd   |
| Sample Status |             |             | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## CONTAMINATION

|       | method    | limit/base | current    | history1 | history2 |
|-------|-----------|------------|------------|----------|----------|
| Water | WC Method | >0.1       | <b>NEG</b> | NEG      | NEG      |

## WEAR METALS

|          | method | limit/base      | current      | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron     | ppm    | ASTM D5185m >50 | <b>7</b>     | 11       | 0        |
| Chromium | ppm    | ASTM D5185m >4  | <b>1</b>     | 1        | 0        |
| Nickel   | ppm    | ASTM D5185m >2  | <b>1</b>     | 1        | 0        |
| Titanium | ppm    | ASTM D5185m     | <b>&lt;1</b> | <1       | 0        |
| Silver   | ppm    | ASTM D5185m >3  | <b>0</b>     | 0        | 0        |
| Aluminum | ppm    | ASTM D5185m >9  | <b>&lt;1</b> | 2        | 2        |
| Lead     | ppm    | ASTM D5185m >30 | <b>1</b>     | 2        | <1       |
| Copper   | ppm    | ASTM D5185m >35 | <b>2</b>     | 2        | <1       |
| Tin      | ppm    | ASTM D5185m >4  | <b>1</b>     | 1        | <1       |
| Vanadium | ppm    | ASTM D5185m     | <b>&lt;1</b> | <1       | 0        |
| Cadmium  | ppm    | ASTM D5185m     | <b>&lt;1</b> | <1       | 0        |

## ADDITIVES

|            | method | limit/base       | current      | history1 | history2 |
|------------|--------|------------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m 5    | <b>0</b>     | 0        | 0        |
| Barium     | ppm    | ASTM D5185m 1    | <b>0</b>     | 0        | 0        |
| Molybdenum | ppm    | ASTM D5185m 2    | <b>2</b>     | 3        | 0        |
| Manganese  | ppm    | ASTM D5185m 1    | <b>&lt;1</b> | <1       | <1       |
| Magnesium  | ppm    | ASTM D5185m 5    | <b>7</b>     | 20       | 8        |
| Calcium    | ppm    | ASTM D5185m 1220 | <b>1297</b>  | 1305     | 1231     |
| Phosphorus | ppm    | ASTM D5185m 298  | <b>293</b>   | 307      | 267      |
| Zinc       | ppm    | ASTM D5185m 350  | <b>357</b>   | 355      | 340      |
| Sulfur     | ppm    | ASTM D5185m 1995 | <b>2618</b>  | 2547     | 2192     |

## CONTAMINANTS

|           | method | limit/base        | current    | history1 | history2 |
|-----------|--------|-------------------|------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >+100 | <b>3</b>   | 9        | 1        |
| Sodium    | ppm    | ASTM D5185m       | <b>0</b>   | 0        | 2        |
| Potassium | ppm    | ASTM D5185m >20   | <b>3</b>   | 1        | <1       |
| Fuel      | %      | ASTM D3524 >4.0   | <b>0.0</b> | 0.0      | 0.1      |

## INFRA-RED

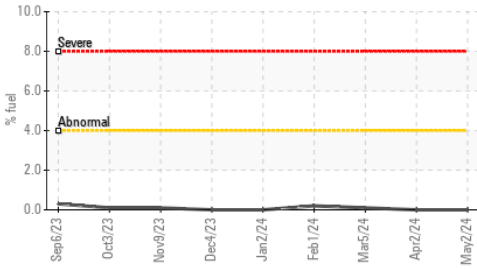
|           | method   | limit/base      | current     | history1 | history2 |
|-----------|----------|-----------------|-------------|----------|----------|
| Soot %    | %        | *ASTM D7844     | <b>0</b>    | 0        | 0        |
| Nitration | Abs/cm   | *ASTM D7624 >20 | <b>4.6</b>  | 3.9      | 3.8      |
| Sulfation | Abs/.1mm | *ASTM D7415 >30 | <b>14.2</b> | 14.4     | 14.3     |

## FLUID DEGRADATION

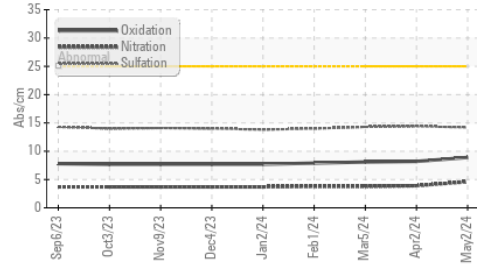
|                  | method   | limit/base      | current     | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Oxidation        | Abs/.1mm | *ASTM D7414 >25 | <b>8.9</b>  | 8.2      | 8.1      |
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.86 | <b>0.44</b> | 0.707    | 0.25     |
| Base Number (BN) | mg KOH/g | ASTM D2896 3.9  | <b>3.47</b> | 3.83     | 3.78     |

# OIL ANALYSIS REPORT

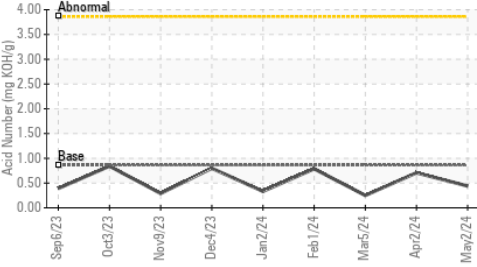
## Fuel Dilution



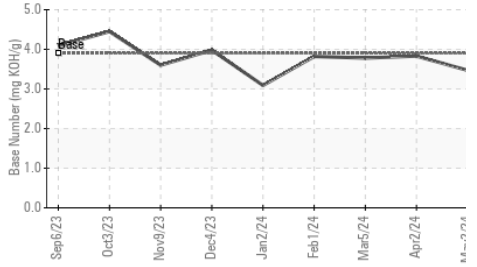
## FT-IR (Direct Trend)



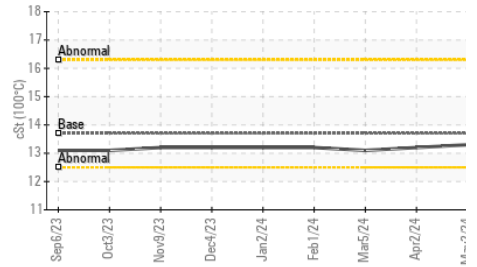
## Acid Number



## Base Number



## Viscosity @ 100°C



## VISUAL

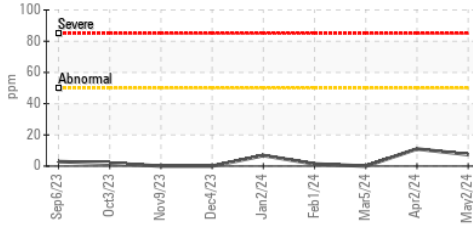
|                  | method | limit/base | current | history1     | history2 |
|------------------|--------|------------|---------|--------------|----------|
| White Metal      | scalar | *Visual    | NONE    | <b>LIGHT</b> | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | <b>NONE</b>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

## FLUID PROPERTIES

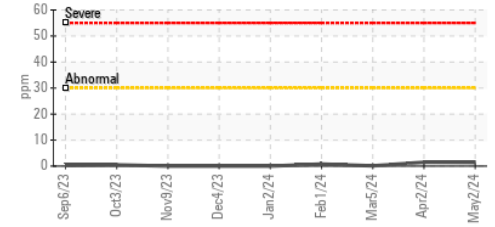
|              | method | limit/base | current | history1    | history2 |
|--------------|--------|------------|---------|-------------|----------|
| Visc @ 100°C | cSt    | ASTM D445  | 13.7    | <b>13.3</b> | 13.2     |

## GRAPHS

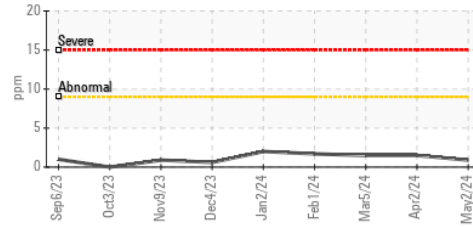
### Iron (ppm)



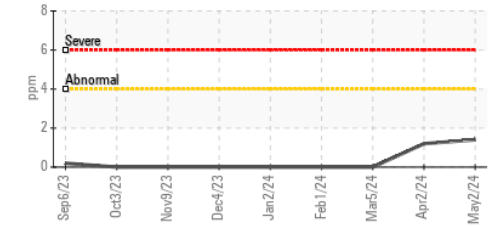
### Lead (ppm)



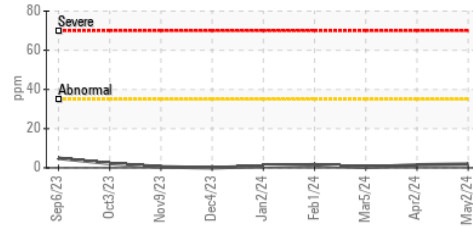
### Aluminum (ppm)



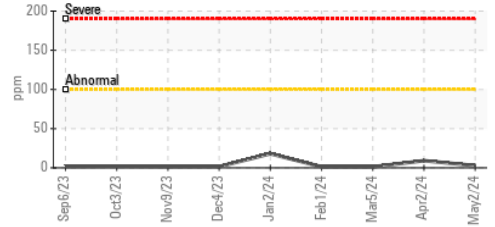
### Chromium (ppm)



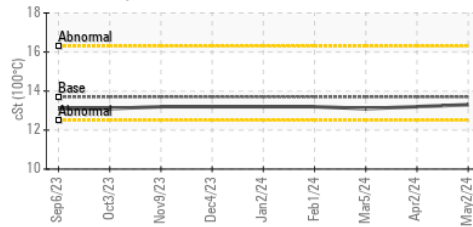
### Copper (ppm)



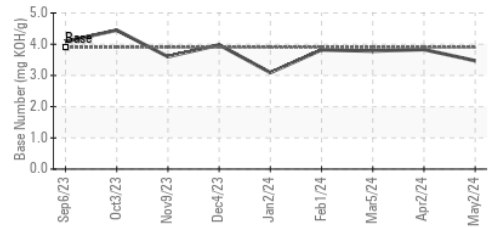
### Silicon (ppm)



### Viscosity @ 100°C



### Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : PCA0111895

**Lab Number** : 06174050

**Unique Number** : 11020103

**Test Package** : MOB 2 ( Additional Tests: FuelDilution, PercentFuel )

**Received** : 09 May 2024

**Tested** : 15 May 2024

**Diagnosed** : 15 May 2024 - Wes Davis

**ENERVEST OPERATING - HAYS BOOSTER**

1705 BREAKS PARK ROAD

HAYS, VA

US 24256

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: