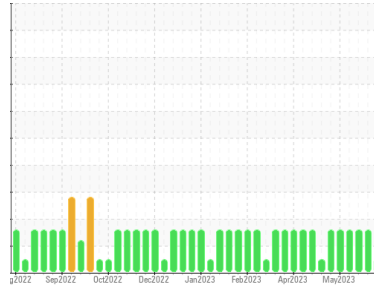




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**2 (S/N GZJ00315)**  
 Component  
**Natural Gas Engine**  
 Fluid  
**PETRO CANADA SENTRON CG 40 (145 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: Total oil added 17 gallons )

### 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>WC0799217</b>   | WC0799215   | WC0799179   |
| Sample Date   | Client Info |             | <b>05 Jun 2023</b> | 30 May 2023 | 22 May 2023 |
| Machine Age   | hrs         | Client Info | <b>119105</b>      | 118963      | 118771      |
| Oil Age       | hrs         | Client Info | <b>89</b>          | 923         | 731         |
| Oil Changed   | Client Info |             | <b>N/A</b>         | N/A         | N/A         |
| Sample Status |             |             | <b>NORMAL</b>      | ABNORMAL    | ABNORMAL    |

## 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>2</b>     | 6        | 6        |
| Chromium | ppm    | ASTM D5185m >4  | <b>&lt;1</b> | 1        | 1        |
| Nickel   | ppm    | ASTM D5185m >2  | <b>0</b>     | <1       | 0        |
| Titanium | ppm    | ASTM D5185m     | <b>&lt;1</b> | <1       | <1       |
| Silver   | ppm    | ASTM D5185m >3  | <b>0</b>     | 0        | 0        |
| Aluminum | ppm    | ASTM D5185m >9  | <b>0</b>     | <1       | 2        |
| Lead     | ppm    | ASTM D5185m >30 | <b>0</b>     | 0        | 0        |
| Copper   | ppm    | ASTM D5185m >35 | <b>&lt;1</b> | 3        | 2        |
| Tin      | ppm    | ASTM D5185m >4  | <b>&lt;1</b> | 5        | 5        |
| 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 0    | <b>0</b>     | <1       | 0        |
| Barium     | ppm    | ASTM D5185m 1    | <b>0</b>     | 0        | 0        |
| Molybdenum | ppm    | ASTM D5185m 2    | <b>&lt;1</b> | <1       | <1       |
| Manganese  | ppm    | ASTM D5185m 1    | <b>&lt;1</b> | <1       | <1       |
| Magnesium  | ppm    | ASTM D5185m 9    | <b>13</b>    | 13       | 13       |
| Calcium    | ppm    | ASTM D5185m 2712 | <b>2813</b>  | 2975     | 2991     |
| Phosphorus | ppm    | ASTM D5185m 292  | <b>288</b>   | 299      | 288      |
| Zinc       | ppm    | ASTM D5185m 342  | <b>354</b>   | 353      | 353      |
| Sulfur     | ppm    | ASTM D5185m 2575 | <b>3916</b>  | 4030     | 4140     |

## CONTAMINANTS

|           | method | limit/base        | current      | history1 | history2 |
|-----------|--------|-------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >+100 | <b>71</b>    | ▲ 437    | ▲ 356    |
| Sodium    | ppm    | ASTM D5185m       | <b>&lt;1</b> | 2        | 2        |
| Potassium | ppm    | ASTM D5185m >20   | <b>&lt;1</b> | 0        | 0        |
| Fuel      | %      | ASTM D3524 >4.0   | <b>0.3</b>   | 0.3      | 0.3      |

## INFRA-RED

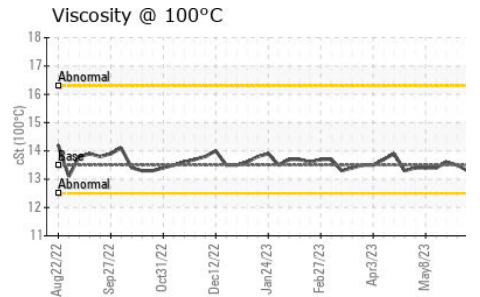
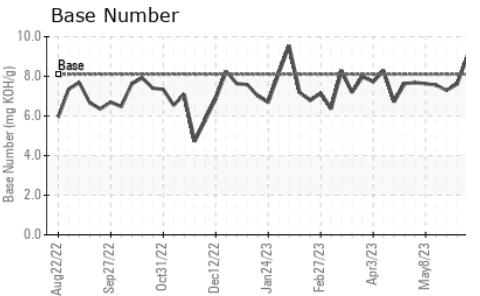
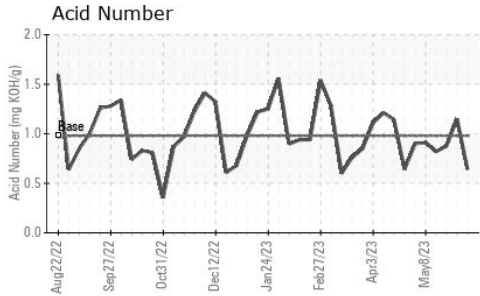
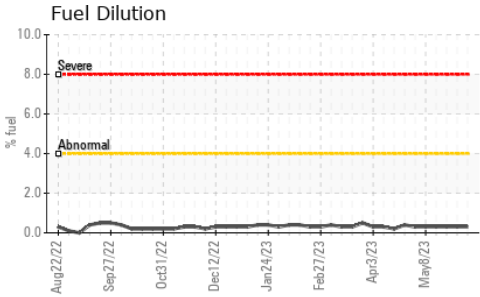
|           | method   | limit/base      | current     | history1 | history2 |
|-----------|----------|-----------------|-------------|----------|----------|
| Soot %    | %        | *ASTM D7844     | <b>0</b>    | 0.1      | 0.1      |
| Nitration | Abs/cm   | *ASTM D7624 >20 | <b>3.9</b>  | 5.5      | 5.9      |
| Sulfation | Abs/.1mm | *ASTM D7415 >30 | <b>15.1</b> | 21.4     | 19.9     |

## FLUID DEGRADATION

|                  | method   | limit/base      | current     | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Oxidation        | Abs/.1mm | *ASTM D7414 >25 | <b>7.9</b>  | 11.9     | 10.7     |
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.98 | <b>0.64</b> | 1.15     | 0.877    |
| Base Number (BN) | mg KOH/g | ASTM D2896 8.1  | <b>9.01</b> | 7.61     | 7.29     |



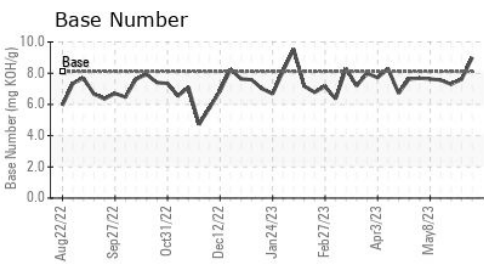
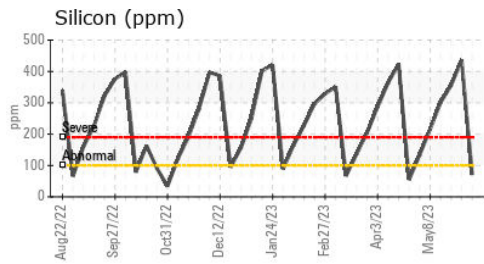
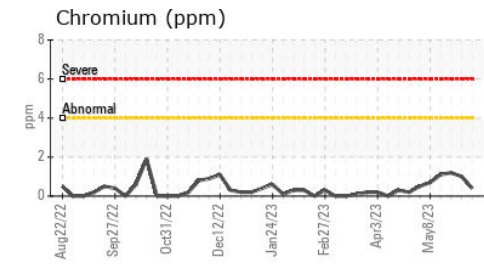
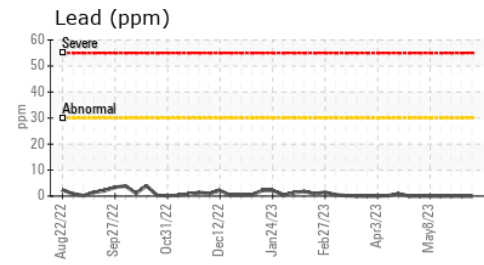
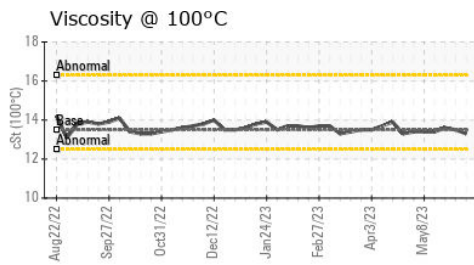
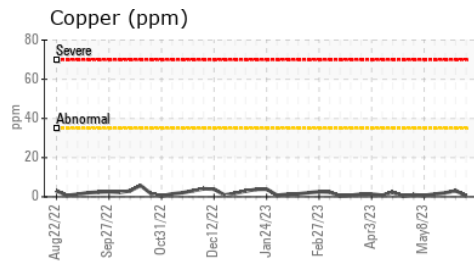
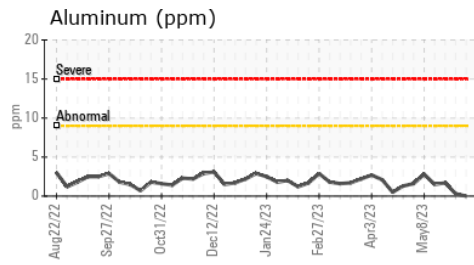
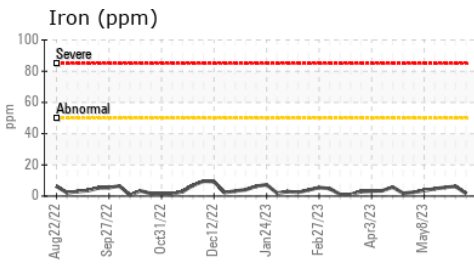
# OIL ANALYSIS REPORT



| 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   | NORML    | NORML    |
| Odor             | scalar | *Visual    | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual    | >0.1    | NEG      | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

| FLUID PROPERTIES | method | limit/base | current | history1    | history2 |      |
|------------------|--------|------------|---------|-------------|----------|------|
| Visc @ 100°C     | cSt    | ASTM D445  | 13.5    | <b>13.3</b> | 13.5     | 13.6 |

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0799217 **Received** : 07 Jun 2023  
**Lab Number** : **05867409** **Tested** : 08 Jun 2023  
**Unique Number** : 10507193 **Diagnosed** : 09 Jun 2023 - Sean Felton  
**Test Package** : MOB 2 ( Additional Tests: FuelDilution, PercentFuel )

**FINLEY BIOENERGY**  
 74265 Bombing Range Road  
 Boardman, OR  
 US 97818  
 Contact: Blain Middleton  
 bmiddleton@archaea.energy  
 T: (541)481-3232  
 F:

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)