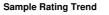


### **OIL ANALYSIS REPORT**





Machine Id

#### **84** Component

**Diesel Engine** 

## TOTAL FINA RUBIA TIR 7900 15W40 (--- GAL)

#### DIAGNOSIS

#### Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

#### Wear

All component wear rates are normal.

#### Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

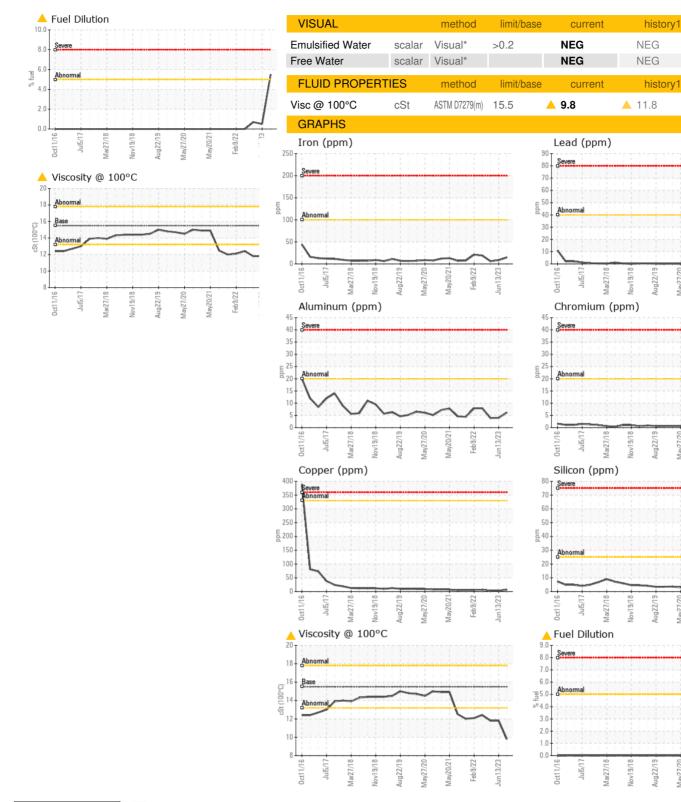
#### Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

| L)   |  | ežotis Južoti Mežotis Nevčotis Augžoti Meyžozi Febžozz Junžoza   |  |   |  |  |
|--|--|--|--|---|--|--|
| SAMPLE INFORM  | IATION                                     | method   | limit/base   | current   | history1   | history2   |
| Sample Number  |  | Client Info  |  | WC0551923   | WC0716324  | WC0551891  |
| Sample Date  |  | Client Info  |  | 14 Sep 2023   | 13 Jun 2023  | 12 Oct 2022  |
| Aachine Age  | hrs  | Client Info  |  | 12823   | 12354  | 11461  |
| Dil Age  | hrs  | Client Info  |  | 500   | 500  | 500  |
| Dil Changed  |  | Client Info  |  | Changed   | N/A  | N/A  |
| Sample Status  |  |  |  | ABNORMAL  | ABNORMAL   | ABNORMAL   |
| CONTAMINATION  | ١  | method   | limit/base   | current   | history1   | history2   |
| Glycol   |  | WC Method  |  | NEG   | NEG  | NEG  |
| WEAR METALS  |  | method   | limit/base   | current   | history1   | history2   |
| ron  | ppm  | ASTM D5185(m)  | >100   | 15  | 8  | 6  |
| Chromium   | ppm  | ASTM D5185(m)  | >20  | <1  | <1   | <1   |
| lickel   | ppm  | ASTM D5185(m)  | >4   | 0   | 0  | <1   |
| ītanium  | ppm  | ASTM D5185(m)  |  | 0   | <1   | <1   |
| Silver   | ppm  | ASTM D5185(m)  | >3   | <1  | 0  | 0  |
| Aluminum   | ppm  | ASTM D5185(m)  | >20  | 6   | 4  | 4  |
| ead  | ppm  | ASTM D5185(m)  | >40  | 0   | 0  | 0  |
| Copper   | ppm  | ASTM D5185(m)  | >330   | 7   | 3  | 3  |
| īn   | ppm  | ASTM D5185(m)  | >15  | <1  | <1   | <1   |
| ntimony  | ppm  | ASTM D5185(m)  |  | 0   | 0  | <1   |
| anadium  | ppm  | ASTM D5185(m)  |  | 0   | 0  | 0  |
| Beryllium  | ppm  | ASTM D5185(m)  |  | 0   | 0  | 0  |
| Cadmium  | ppm  | ASTM D5185(m)  |  | 0   | 0  | 0  |
| ADDITIVES  |  | method   | limit/base   | current   | history1   | history2   |
| Boron  | ppm  | ASTM D5185(m)  |  | 14  | 29   | 60   |
| Barium   | ppm  | ASTM D5185(m)  |  | <1  | 0  | 0  |
| lolybdenum   | ppm  | ASTM D5185(m)  |  | 63  | 89   | 86   |
| langanese  | ppm  | ASTM D5185(m)  |  | 0   | <1   | <1   |
| lagnesium  | ppm  | ASTM D5185(m)  |  | 31  | 45   | 43   |
| Calcium  | ppm  | ASTM D5185(m)  | 3290   | 1818  | 2160   | 2158   |
| hosphorus  | ppm  | ASTM D5185(m)  | 1200   | 789   | 1046   | 1068   |
| linc   | ppm  | ASTM D5185(m)  | 1400   | 961   | 1178   | 1134   |
| Sulfur   | ppm  | ASTM D5185(m)  | 4000   | 2573  | 3011   | 3210   |
| ithium   | ppm  | ASTM D5185(m)  |  | <1  | <1   | <1   |
|  |  |  |  |   |  |  |
| CONTAMINANTS   |  | method   | limit/base   | current   | history1   | history2   |
| CONTAMINANTS<br>Silicon  | ppm  | method<br>ASTM D5185(m)  | limit/base   | current<br>10   | history1<br>8  | history2<br>5                                      |
| Silicon  |  |  |  |   |  |  |
| Silicon<br>Sodium  | ppm  | ASTM D5185(m)  |  | 10  | 8  | 5  |
| Silicon<br>Sodium<br>Potassium   | ppm<br>ppm                                 | ASTM D5185(m)<br>ASTM D5185(m)   | >25  | 10<br>4   | 8  | 5  |
| Silicon<br>Sodium<br>Potassium   | ppm<br>ppm<br>ppm                          | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)  | >25<br>>20   | 10<br>4<br>2  | 8<br>6<br>1  | 5<br>4<br>1  |
| Silicon<br>Sodium<br>Potassium<br>Fuel<br>INFRA-RED                                  | ppm<br>ppm<br>ppm                          | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D7593*   | >25<br>>20<br>>5                                   | 10<br>4<br>2<br>▲ 5.5   | 8<br>6<br>1<br>0.5                                   | 5<br>4<br>1<br>0.7                                 |
| Silicon<br>Sodium<br>Potassium<br>Fuel<br>INFRA-RED<br>Soot %                        | ppm<br>ppm<br>%                            | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D7593*<br>method   | >25<br>>20<br>>5<br>limit/base                     | 10<br>4<br>2<br>▲ 5.5<br>current                              | 8<br>6<br>1<br>0.5<br>history1                       | 5<br>4<br>1<br>0.7<br>history2                     |
| Silicon<br>Sodium<br>Potassium<br>Fuel   | ppm<br>ppm<br>%                            | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D7593*<br><b>method</b><br>ASTM D7844*                               | >25<br>>20<br>>5<br>limit/base<br>>3               | 10<br>4<br>2<br>▲ 5.5<br>current<br>0.1                       | 8<br>6<br>1<br>0.5<br>history1<br>0.1                | 4<br>1<br>0.7<br>history2<br>0                     |
| Silicon<br>Sodium<br>Potassium<br>Fuel<br>INFRA-RED<br>Soot %<br>Vitration           | ppm<br>ppm<br>%<br>%<br>Abs/cm<br>Abs/.1mm | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D7593*<br><b>method</b><br>ASTM D7844*<br>ASTM D7824*                | >25<br>>20<br>>5<br>limit/base<br>>3<br>>20        | 10<br>4<br>2<br>▲ 5.5<br>current<br>0.1<br>7.6                | 8<br>6<br>1<br>0.5<br>history1<br>0.1<br>9.4         | 5<br>4<br>1<br>0.7<br>history2<br>0<br>7.8         |
| Silicon<br>Sodium<br>Potassium<br>Fuel<br>INFRA-RED<br>Soot %<br>Soot %<br>Sulfation | ppm<br>ppm<br>%<br>%<br>Abs/cm<br>Abs/.1mm | ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D5185(m)<br>ASTM D7593*<br><b>method</b><br>ASTM D7844*<br>ASTM D7844*<br>ASTM D7624* | >25<br>>20<br>>5<br>limit/base<br>>3<br>>20<br>>30 | 10<br>4<br>2<br>▲ 5.5<br><u>current</u><br>0.1<br>7.6<br>18.3 | 8<br>6<br>1<br>0.5<br>history1<br>0.1<br>9.4<br>19.9 | 5<br>4<br>1<br>0.7<br>history2<br>0<br>7.8<br>18.8 |



# **OIL ANALYSIS REPORT**



: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Diagnostician : Kevin Marson

: 12 Oct 2023

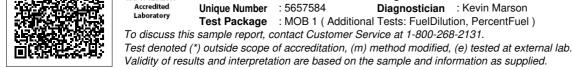
: 13 Oct 2023

Received

Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

Diagnosed

**COLACEM CANADA INC** 56 RUE LONGUEUIL CP 301 L'ORIGNAL, ON CA K0B 1K0 **Contact: Gabriel Parent** gparent@colacem.ca T: F: (613)675-2747



CALA

ISO 17025:2017

Laboratory

Sample No.

Lab Number

Unique Number

: WC0551923

: 02588518

: 5657584

Contact/Location: Gabriel Parent - BERLOR

un13/23

C/by

history2

history2

NEG

NEG

**11.8**