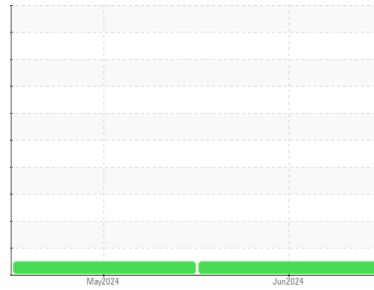




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id

**2271**

Component

**Natural Gas Engine**

Fluid

**VALVOLINE PREMIUM BLUE 9200 15W40 (--- GAL)**

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

#### Wear

Metal levels are typical for a new component breaking in.

#### Contamination

There is no indication of any contamination in the oil.

#### Fluid Condition

The condition of the oil is acceptable for the time in service.

| SAMPLE INFORMATION |             | method      | limit/base | current            | history1    | history2 |
|--------------------|-------------|-------------|------------|--------------------|-------------|----------|
| Sample Number      | Client Info |             |            | <b>WC0937168</b>   | WC0937374   | ---      |
| Sample Date        | Client Info |             |            | <b>20 Jun 2024</b> | 04 May 2024 | ---      |
| Machine Age        | kms         | Client Info |            | <b>5813</b>        | 1811        | ---      |
| Oil Age            | kms         | Client Info |            | <b>0</b>           | 0           | ---      |
| Oil Changed        | Client Info |             |            | <b>N/A</b>         | N/A         | ---      |
| Sample Status      |             |             |            | <b>NORMAL</b>      | NORMAL      | ---      |

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

| WEAR METALS |     | method        | limit/base | current      | history1 | history2 |
|-------------|-----|---------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185(m) | >50        | <b>14</b>    | 30       | ---      |
| Chromium    | ppm | ASTM D5185(m) | >4         | <b>0</b>     | 0        | ---      |
| Nickel      | ppm | ASTM D5185(m) | >2         | <b>&lt;1</b> | <1       | ---      |
| Titanium    | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | ---      |
| Silver      | ppm | ASTM D5185(m) | >3         | <b>0</b>     | 0        | ---      |
| Aluminum    | ppm | ASTM D5185(m) | >9         | <b>1</b>     | 1        | ---      |
| Lead        | ppm | ASTM D5185(m) | >30        | <b>0</b>     | 0        | ---      |
| Copper      | ppm | ASTM D5185(m) | >35        | <b>3</b>     | 17       | ---      |
| Tin         | ppm | ASTM D5185(m) | >4         | <b>&lt;1</b> | 0        | ---      |
| Antimony    | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | ---      |
| Vanadium    | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | ---      |
| Beryllium   | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | ---      |
| Cadmium     | ppm | ASTM D5185(m) |            | <b>0</b>     | 0        | ---      |

| ADDITIVES  |     | method        | limit/base | current      | history1 | history2 |
|------------|-----|---------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185(m) |            | <b>26</b>    | 32       | ---      |
| Barium     | ppm | ASTM D5185(m) |            | <b>&lt;1</b> | 3        | ---      |
| Molybdenum | ppm | ASTM D5185(m) |            | <b>50</b>    | 47       | ---      |
| Manganese  | ppm | ASTM D5185(m) |            | <b>2</b>     | 14       | ---      |
| Magnesium  | ppm | ASTM D5185(m) |            | <b>776</b>   | 741      | ---      |
| Calcium    | ppm | ASTM D5185(m) |            | <b>1154</b>  | 1141     | ---      |
| Phosphorus | ppm | ASTM D5185(m) |            | <b>678</b>   | 694      | ---      |
| Zinc       | ppm | ASTM D5185(m) |            | <b>791</b>   | 804      | ---      |
| Sulfur     | ppm | ASTM D5185(m) |            | <b>1874</b>  | 1941     | ---      |
| Lithium    | ppm | ASTM D5185(m) |            | <b>&lt;1</b> | <1       | ---      |

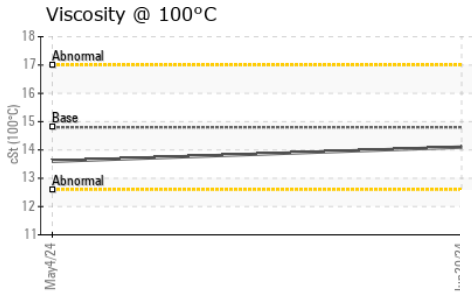
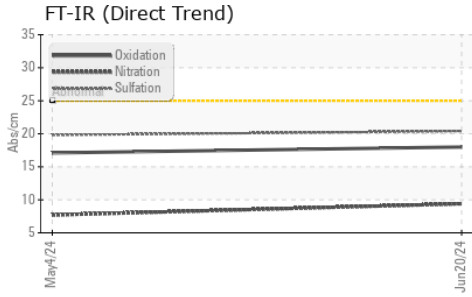
| CONTAMINANTS |     | method        | limit/base | current      | history1 | history2 |
|--------------|-----|---------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185(m) | >+100      | <b>14</b>    | 35       | ---      |
| Sodium       | ppm | ASTM D5185(m) |            | <b>3</b>     | 5        | ---      |
| Potassium    | ppm | ASTM D5185(m) | >20        | <b>&lt;1</b> | 2        | ---      |

| INFRA-RED |          | method      | limit/base | current     | history1 | history2 |
|-----------|----------|-------------|------------|-------------|----------|----------|
| Soot %    | %        | ASTM D7844* |            | <b>0</b>    | 0        | ---      |
| Nitration | Abs/cm   | ASTM D7624* | >20        | <b>9.4</b>  | 7.7      | ---      |
| Sulfation | Abs/.1mm | ASTM D7415* | >30        | <b>20.4</b> | 19.8     | ---      |

| FLUID DEGRADATION |          | method      | limit/base | current     | history1 | history2 |
|-------------------|----------|-------------|------------|-------------|----------|----------|
| Oxidation         | Abs/.1mm | ASTM D7414* | >25        | <b>18.0</b> | 17.1     | ---      |



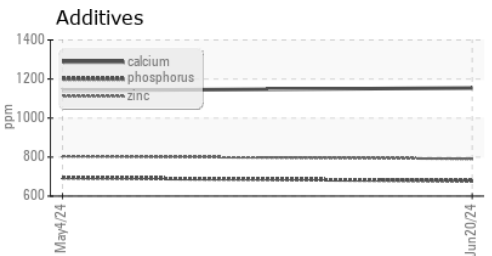
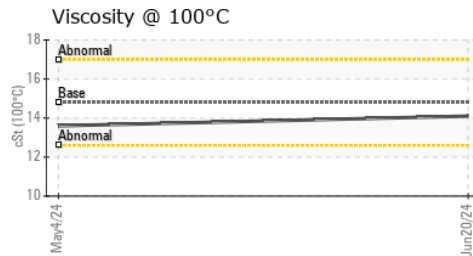
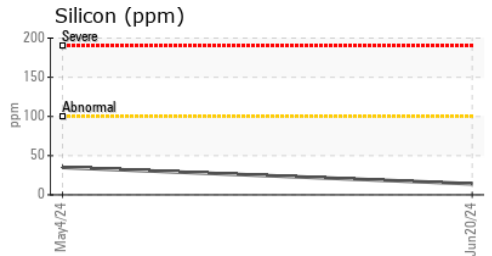
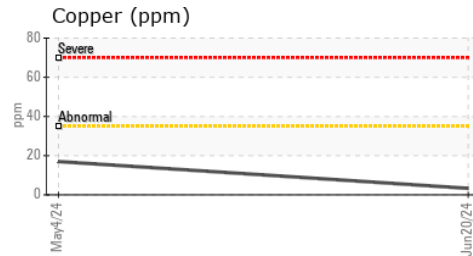
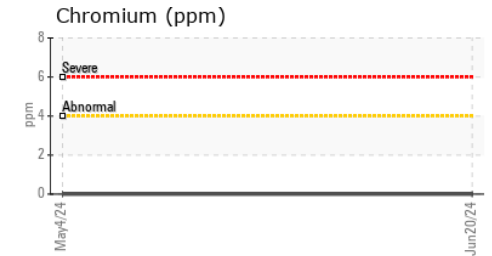
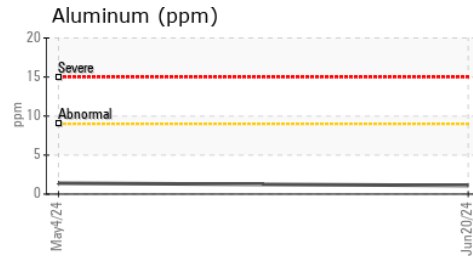
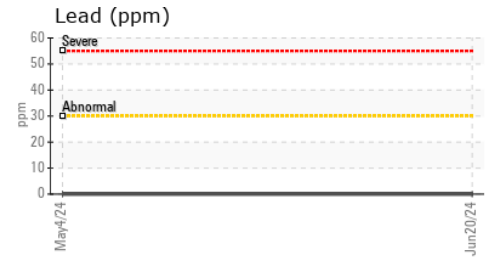
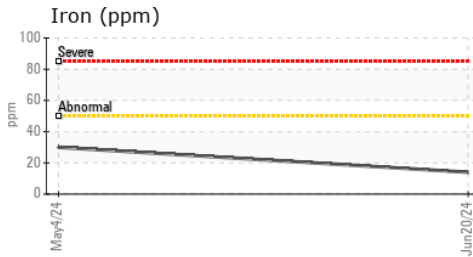
# OIL ANALYSIS REPORT



| 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    | 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 D7279(m) | 14.8    | <b>14.1</b> | 13.6     | --- |

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0937168 **Received** : 25 Jun 2024  
**Lab Number** : **02644016** **Tested** : 25 Jun 2024  
**Unique Number** : 5801555 **Diagnosed** : 25 Jun 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: Visual )

**CITY OF HAMILTON**  
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 CA L0R 1W0  
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 T: (905)546-2424  
 F: (905)679-4502

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.