

Machine Id  
**5504**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 10W30 (--- GAL)**

**RECOMMENDATION**

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

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>PC0083758</b>   | PC0057208   | PC0053308   |
| Sample Date    |     | Client Info |           | <b>14 Apr 2024</b> | 27 Mar 2023 | 13 Dec 2021 |
| Machine Age    | hrs | Client Info |           | <b>6419</b>        | 6205        | 5902        |
| Oil Age        | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>N/A</b>         | N/A         | N/A         |
| Filter Changed |     | Client Info |           | <b>N/A</b>         | N/A         | N/A         |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

**WEAR**

All component wear rates are normal.

|              |        |               |      |             |      |       |
|--------------|--------|---------------|------|-------------|------|-------|
| Iron         | ppm    | ASTM D5185(m) | >100 | <b>20</b>   | 15   | 10    |
| Chromium     | ppm    | ASTM D5185(m) | >20  | <b>0</b>    | 0    | <1    |
| Nickel       | ppm    | ASTM D5185(m) | >4   | <b>0</b>    | <1   | <1    |
| Titanium     | ppm    | ASTM D5185(m) |      | <b>0</b>    | <1   | 0     |
| Silver       | ppm    | ASTM D5185(m) | >3   | <b>0</b>    | 0    | 0     |
| Aluminum     | ppm    | ASTM D5185(m) | >20  | <b>4</b>    | 2    | 2     |
| Lead         | ppm    | ASTM D5185(m) | >40  | <b>0</b>    | <1   | <1    |
| Copper       | ppm    | ASTM D5185(m) | >330 | <b>2</b>    | 1    | 1     |
| Tin          | ppm    | ASTM D5185(m) | >15  | <b>0</b>    | 0    | <1    |
| Vanadium     | ppm    | ASTM D5185(m) |      | <b>0</b>    | 0    | 0     |
| White Metal  | scalar | Visual*       | NONE | <b>NONE</b> | NONE | LIGHT |
| Yellow Metal | scalar | Visual*       | NONE | <b>NONE</b> | NONE | NONE  |

**CONTAMINATION**

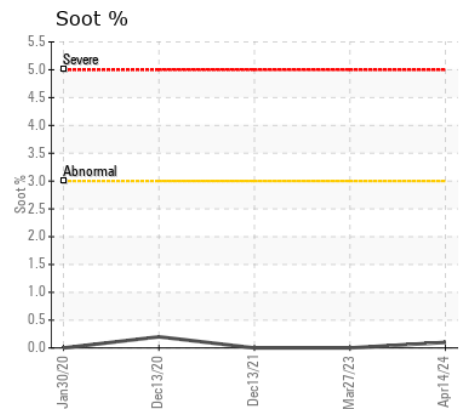
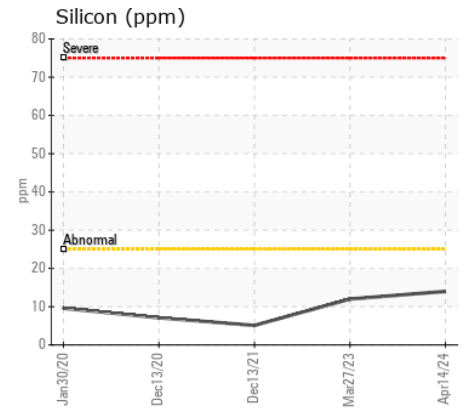
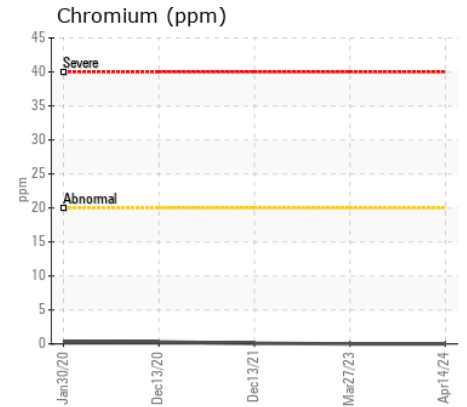
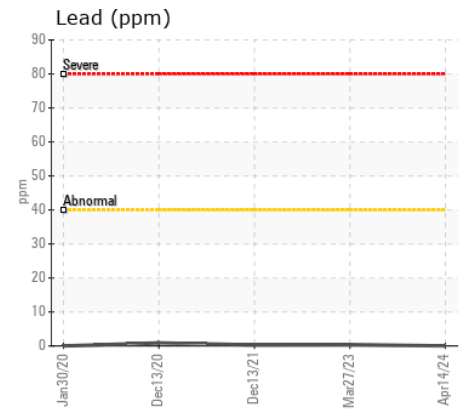
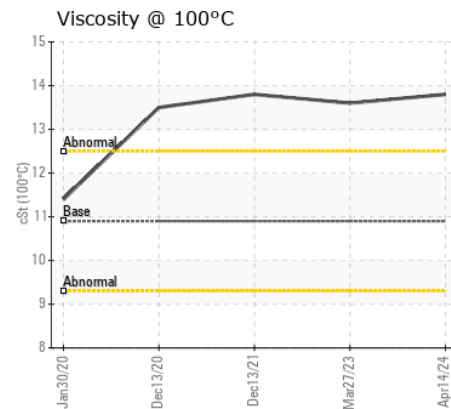
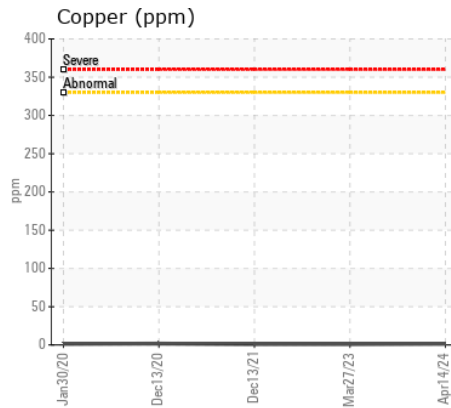
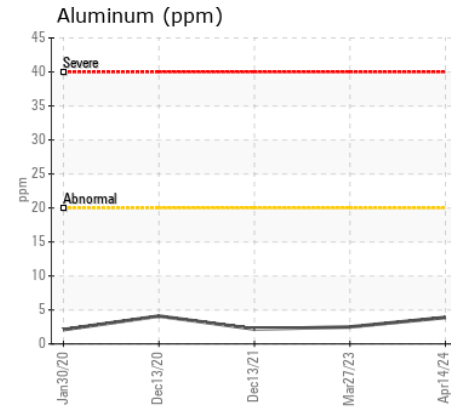
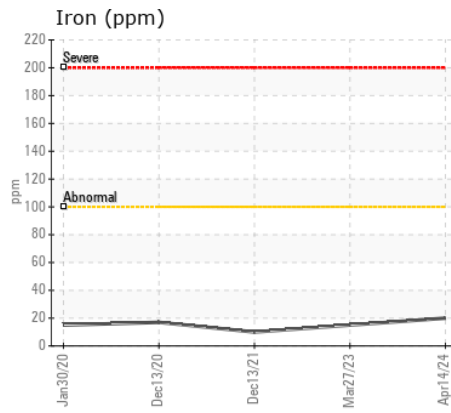
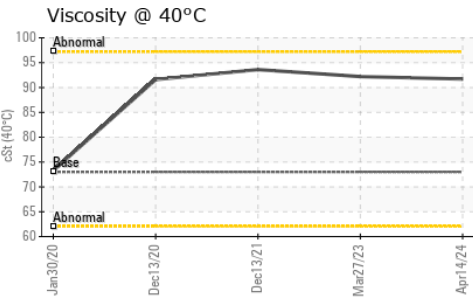
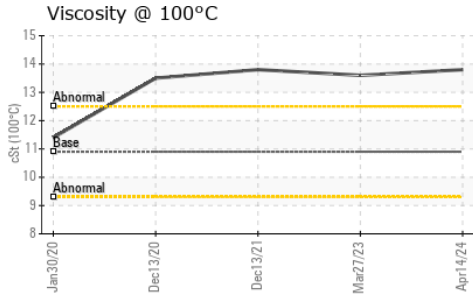
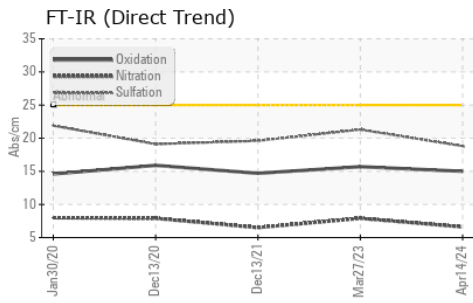
There is no indication of any contamination in the oil.

|                  |          |               |       |                |       |       |
|------------------|----------|---------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185(m) | >25   | <b>14</b>      | 12    | 5     |
| Potassium        | ppm      | ASTM D5185(m) | >20   | <b>&lt;1</b>   | 0     | <1    |
| Fuel             |          | WC Method     | >5    | <b>&lt;1.0</b> | <1.0  | <1.0  |
| Water            |          | WC Method     | >0.2  | <b>NEG</b>     | NEG   | NEG   |
| Glycol           |          | WC Method     |       | <b>NEG</b>     | NEG   | NEG   |
| Soot %           | %        | ASTM D7844*   | >3    | <b>0.1</b>     | 0     | 0     |
| Nitration        | Abs/cm   | ASTM D7624*   | >20   | <b>6.6</b>     | 7.9   | 6.5   |
| Sulfation        | Abs/.1mm | ASTM D7415*   | >30   | <b>18.8</b>    | 21.3  | 19.6  |
| Silt             | scalar   | Visual*       | NONE  | <b>VLITE</b>   | NONE  | NONE  |
| Debris           | scalar   | Visual*       | NONE  | <b>VLITE</b>   | NONE  | NONE  |
| Sand/Dirt        | scalar   | Visual*       | NONE  | <b>NONE</b>    | VLITE | NONE  |
| Appearance       | scalar   | Visual*       | NORML | <b>NORML</b>   | NORML | NORML |
| Odor             | scalar   | Visual*       | NORML | <b>NORML</b>   | NORML | NORML |
| Emulsified Water | scalar   | Visual*       | >0.2  | <b>NEG</b>     | NEG   | NEG   |

**FLUID CONDITION**

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

|                      |          |               |      |              |      |      |
|----------------------|----------|---------------|------|--------------|------|------|
| Sodium               | ppm      | ASTM D5185(m) |      | <b>2</b>     | 2    | 2    |
| Boron                | ppm      | ASTM D5185(m) | 250  | <b>2</b>     | 4    | 3    |
| Barium               | ppm      | ASTM D5185(m) | 10   | <b>0</b>     | 0    | 0    |
| Molybdenum           | ppm      | ASTM D5185(m) | 100  | <b>59</b>    | 60   | 57   |
| Manganese            | ppm      | ASTM D5185(m) |      | <b>&lt;1</b> | <1   | <1   |
| Magnesium            | ppm      | ASTM D5185(m) | 450  | <b>981</b>   | 985  | 988  |
| Calcium              | ppm      | ASTM D5185(m) | 3000 | <b>1094</b>  | 1131 | 1071 |
| Phosphorus           | ppm      | ASTM D5185(m) | 1150 | <b>982</b>   | 1096 | 1036 |
| Zinc                 | ppm      | ASTM D5185(m) | 1350 | <b>1167</b>  | 1226 | 1194 |
| Sulfur               | ppm      | ASTM D5185(m) | 4250 | <b>2498</b>  | 2653 | 2563 |
| Oxidation            | Abs/.1mm | ASTM D7414*   | >25  | <b>15.0</b>  | 15.7 | 14.7 |
| Visc @ 40°C          | cSt      | ASTM D7279(m) | 73   | <b>91.7</b>  | 92.2 | 93.6 |
| Visc @ 100°C         | cSt      | ASTM D7279(m) | 10.9 | <b>13.8</b>  | 13.6 | 13.8 |
| Viscosity Index (VI) | Scale    | ASTM D2270*   | 138  | <b>153</b>   | 149  | 149  |



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0083758  
**Lab Number** : 02628742  
**Unique Number** : 5761874  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI, Visual )

**LES ENTREPRISES MICHAUVILLE INC.**  
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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.

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F: