



|                 |               |
|-----------------|---------------|
| WEAR            | <b>NORMAL</b> |
| CONTAMINATION   | <b>NORMAL</b> |
| FLUID CONDITION | <b>NORMAL</b> |

Machine Id  
**5050**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 5W40 (--- 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>PC0083720</b>   | PC0077403   | PC0077641   |
| Sample Date    |     | Client Info |           | <b>15 May 2024</b> | 14 Nov 2023 | 25 Jul 2023 |
| Machine Age    | hrs | Client Info |           | <b>2914</b>        | 2460        | 1956        |
| 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>22</b>    | 11   | 12  |
| Chromium     | ppm    | ASTM D5185(m) | >20  | <b>&lt;1</b> | <1   | <1  |
| Nickel       | ppm    | ASTM D5185(m) | >4   | <b>2</b>     | <1   | <1  |
| Titanium     | ppm    | ASTM D5185(m) |      | <b>0</b>     | 0    | 0   |
| Silver       | ppm    | ASTM D5185(m) | >3   | <b>0</b>     | <1   | 0   |
| Aluminum     | ppm    | ASTM D5185(m) | >20  | <b>2</b>     | 1    | 1   |
| Lead         | ppm    | ASTM D5185(m) | >40  | <b>0</b>     | <1   | <1  |
| Copper       | ppm    | ASTM D5185(m) | >330 | <b>3</b>     | 2    | 6   |
| 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 | --- |
| Yellow Metal | scalar | Visual*       | NONE | <b>NONE</b>  | NONE | --- |

**CONTAMINATION**

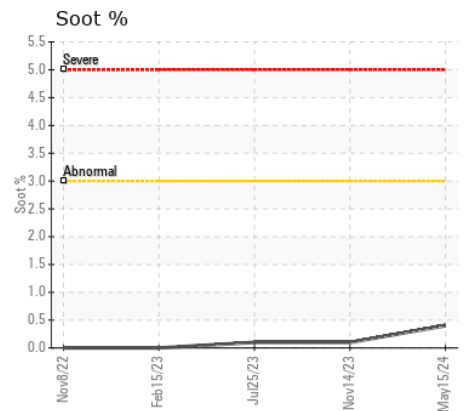
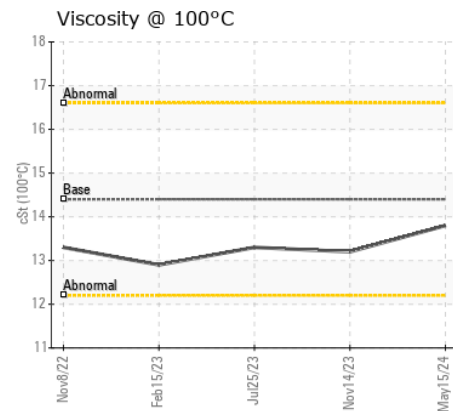
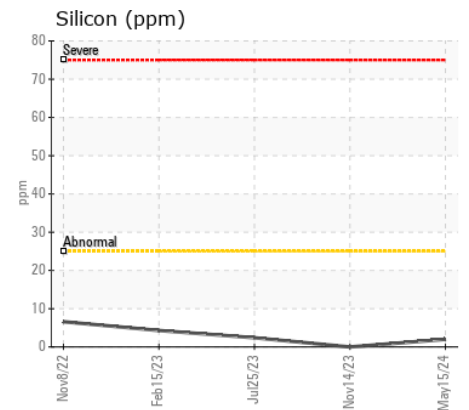
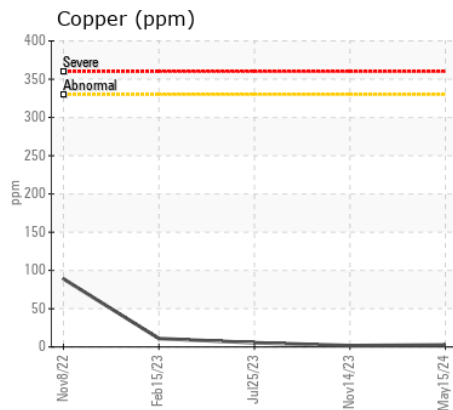
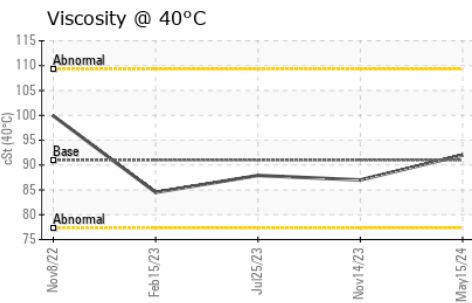
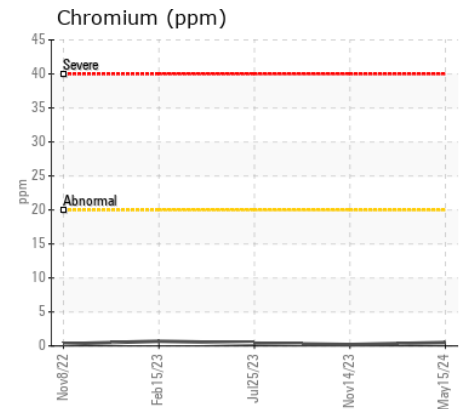
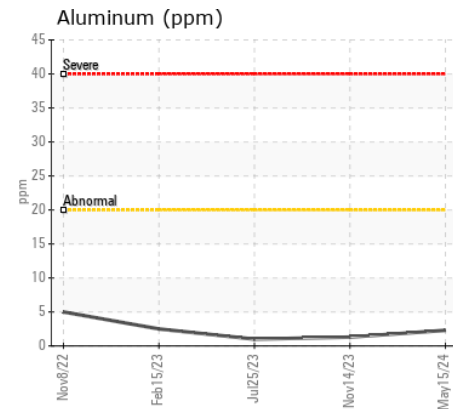
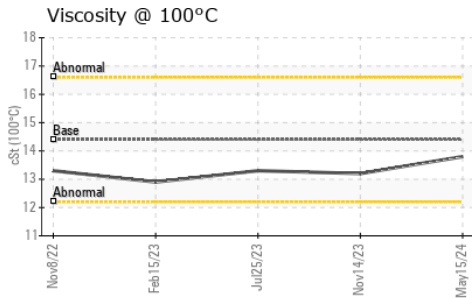
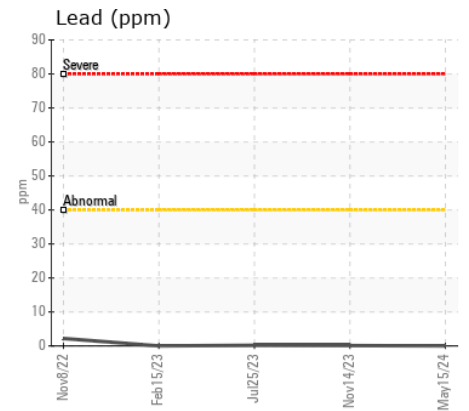
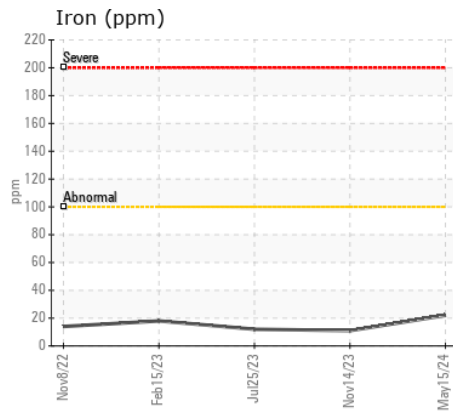
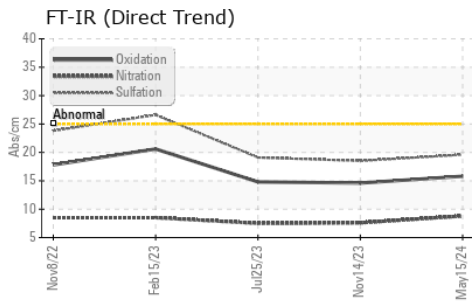
There is no indication of any contamination in the oil.

|                  |          |               |       |                |       |       |
|------------------|----------|---------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185(m) | >25   | <b>2</b>       | 0     | 2     |
| Potassium        | ppm      | ASTM D5185(m) | >20   | <b>2</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>0.4</b>     | 0.1   | 0.1   |
| Nitration        | Abs/cm   | ASTM D7624*   | >20   | <b>8.8</b>     | 7.6   | 7.5   |
| Sulfation        | Abs/.1mm | ASTM D7415*   | >30   | <b>19.6</b>    | 18.5  | 19.1  |
| Silt             | scalar   | Visual*       | NONE  | <b>NONE</b>    | NONE  | ---   |
| Debris           | scalar   | Visual*       | NONE  | <b>VLITE</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 | 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) | >44  | <b>2</b>     | 2    | 2    |
| Boron                | ppm      | ASTM D5185(m) | 250  | <b>1</b>     | 2    | 3    |
| Barium               | ppm      | ASTM D5185(m) | 10   | <b>0</b>     | <1   | 0    |
| Molybdenum           | ppm      | ASTM D5185(m) | 100  | <b>58</b>    | 57   | 57   |
| Manganese            | ppm      | ASTM D5185(m) |      | <b>&lt;1</b> | 0    | <1   |
| Magnesium            | ppm      | ASTM D5185(m) | 450  | <b>937</b>   | 938  | 940  |
| Calcium              | ppm      | ASTM D5185(m) | 3000 | <b>1122</b>  | 1069 | 1096 |
| Phosphorus           | ppm      | ASTM D5185(m) | 1150 | <b>995</b>   | 1000 | 1052 |
| Zinc                 | ppm      | ASTM D5185(m) | 1350 | <b>1199</b>  | 1177 | 1180 |
| Sulfur               | ppm      | ASTM D5185(m) | 4250 | <b>2499</b>  | 2535 | 2565 |
| Oxidation            | Abs/.1mm | ASTM D7414*   | >25  | <b>15.8</b>  | 14.6 | 14.8 |
| Visc @ 40°C          | cSt      | ASTM D7279(m) | 91   | <b>92.0</b>  | 87.0 | 87.9 |
| Visc @ 100°C         | cSt      | ASTM D7279(m) | 14.4 | <b>13.8</b>  | 13.2 | 13.3 |
| Viscosity Index (VI) | Scale    | ASTM D2270*   | 164  | <b>152</b>   | 152  | 152  |



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0083720  
**Lab Number** : 02636536  
**Unique Number** : 5785698  
**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: