



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

Machine Id  
**5017**  
Component  
**Rear Differential**  
Fluid  
**TDTO FLUID SAE 30 (--- GAL)**

**RECOMMENDATION**

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

**WEAR**

Copper ppm levels are abnormal. Thrust washer and/or bearing/bushing wear is indicated.

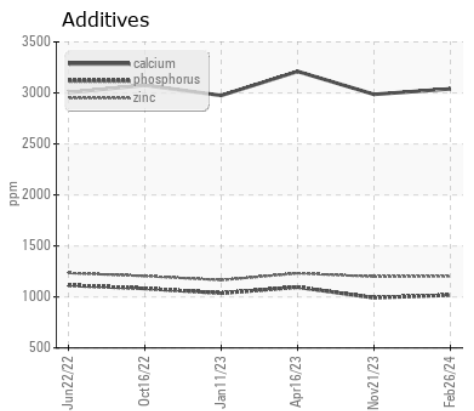
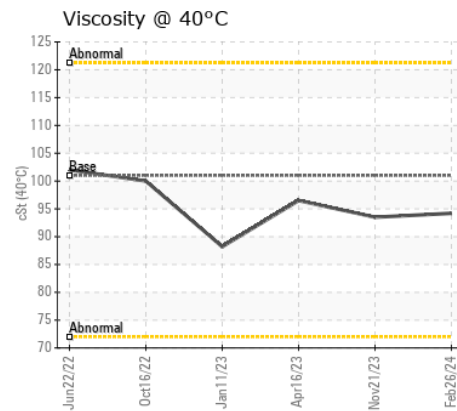
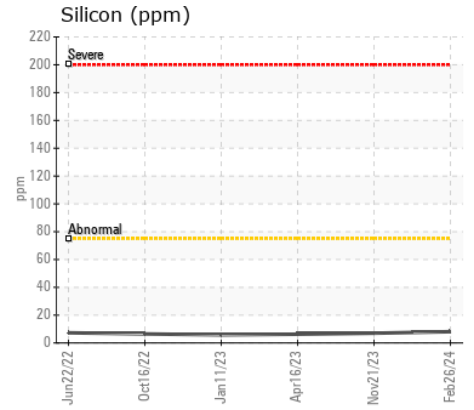
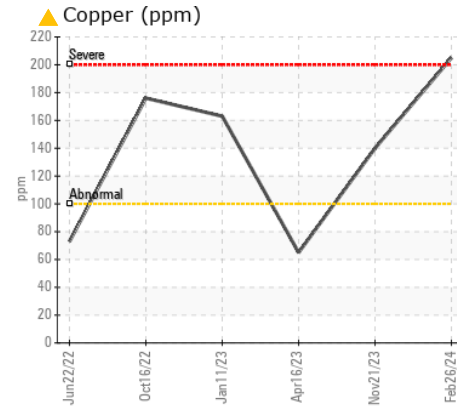
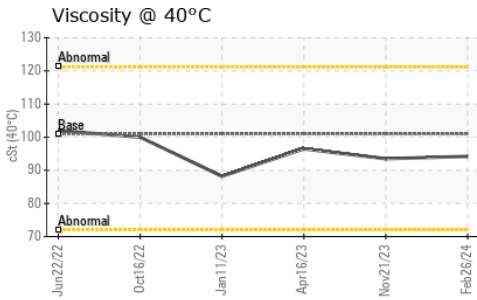
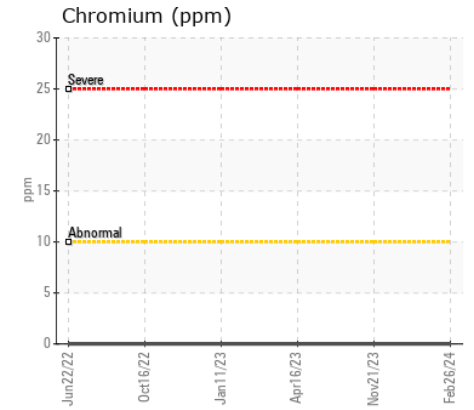
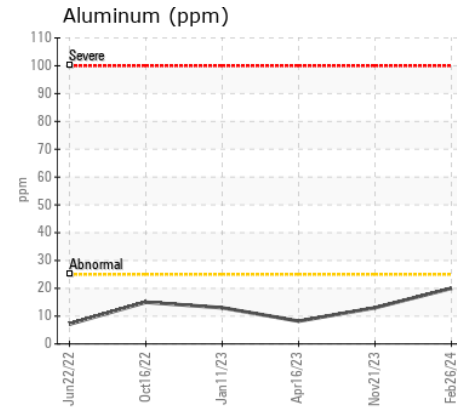
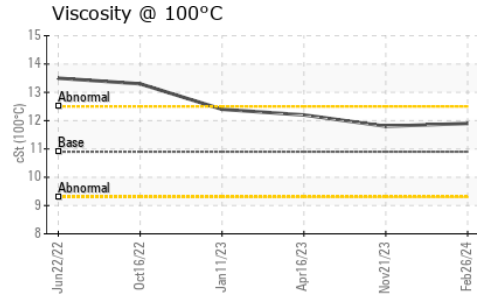
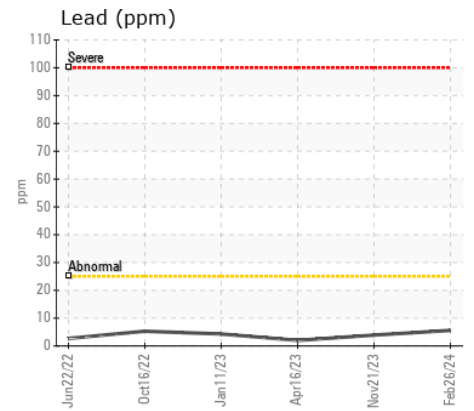
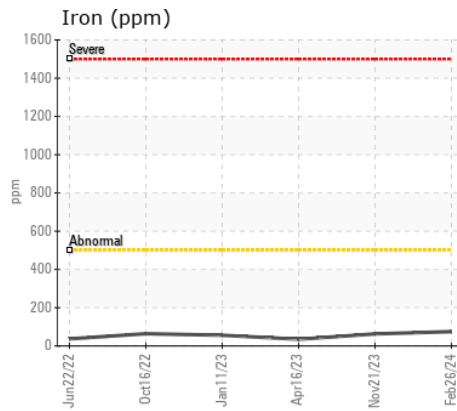
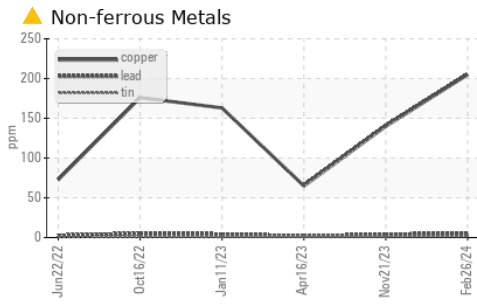
**CONTAMINATION**

There is no indication of any contamination in the oil.

**FLUID CONDITION**

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

| Test                 | UOM    | Method        | Limit/Abn | Current            | History1    | History2    |
|----------------------|--------|---------------|-----------|--------------------|-------------|-------------|
| Sample Number        |        | Client Info   |           | <b>PC0084371</b>   | PC0082527   | PC0070829   |
| Sample Date          |        | Client Info   |           | <b>26 Feb 2024</b> | 21 Nov 2023 | 16 Apr 2023 |
| Machine Age          | hrs    | Client Info   |           | <b>21795</b>       | 21335       | 20458       |
| 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>ABNORMAL</b>    | NORMAL      | NORMAL      |
| Iron                 | ppm    | ASTM D5185(m) | >500      | <b>75</b>          | 63          | 35          |
| Chromium             | ppm    | ASTM D5185(m) | >10       | <b>0</b>           | 0           | 0           |
| Nickel               | ppm    | ASTM D5185(m) | >10       | <b>1</b>           | <1          | <1          |
| Titanium             | ppm    | ASTM D5185(m) |           | <b>0</b>           | 0           | <1          |
| Silver               | ppm    | ASTM D5185(m) |           | <b>0</b>           | <1          | 0           |
| Aluminum             | ppm    | ASTM D5185(m) | >25       | <b>20</b>          | 13          | 8           |
| Lead                 | ppm    | ASTM D5185(m) | >25       | <b>6</b>           | 4           | 2           |
| Copper               | ppm    | ASTM D5185(m) | >100      | <b>▲ 205</b>       | 140         | 65          |
| Tin                  | ppm    | ASTM D5185(m) | >10       | <b>1</b>           | <1          | <1          |
| Vanadium             | ppm    | ASTM D5185(m) |           | <b>0</b>           | 0           | 0           |
| White Metal          | scalar | Visual*       | NONE      | <b>LIGHT</b>       | NONE        | LIGHT       |
| Yellow Metal         | scalar | Visual*       | NONE      | <b>NONE</b>        | LIGHT       | NONE        |
| Silicon              | ppm    | ASTM D5185(m) | >75       | <b>8</b>           | 7           | 6           |
| Potassium            | ppm    | ASTM D5185(m) | >20       | <b>1</b>           | 0           | <1          |
| Water                |        | WC Method     | >.2       | <b>NEG</b>         | NEG         | NEG         |
| Silt                 | scalar | Visual*       | NONE      | <b>NONE</b>        | NONE        | VLITE       |
| Debris               | scalar | Visual*       | NONE      | <b>NONE</b>        | NONE        | NONE        |
| Sand/Dirt            | scalar | Visual*       | NONE      | <b>NONE</b>        | NONE        | NONE        |
| Appearance           | scalar | Visual*       | NORML     | <b>NORML</b>       | NORML       | NORML       |
| Odor                 | scalar | Visual*       | NORML     | <b>NORML</b>       | NORML       | NORML       |
| Emulsified Water     | scalar | Visual*       | >.2       | <b>NEG</b>         | NEG         | NEG         |
| Sodium               | ppm    | ASTM D5185(m) |           | <b>3</b>           | 3           | 2           |
| Boron                | ppm    | ASTM D5185(m) | 37        | <b>15</b>          | 15          | 16          |
| Barium               | ppm    | ASTM D5185(m) | 7         | <b>0</b>           | <1          | 0           |
| Molybdenum           | ppm    | ASTM D5185(m) | 5         | <b>0</b>           | <1          | <1          |
| Manganese            | ppm    | ASTM D5185(m) |           | <b>&lt;1</b>       | <1          | <1          |
| Magnesium            | ppm    | ASTM D5185(m) | 40        | <b>14</b>          | 12          | 13          |
| Calcium              | ppm    | ASTM D5185(m) | 2650      | <b>3040</b>        | 2986        | 3211        |
| Phosphorus           | ppm    | ASTM D5185(m) | 1050      | <b>1018</b>        | 992         | 1096        |
| Zinc                 | ppm    | ASTM D5185(m) | 1075      | <b>1203</b>        | 1199        | 1232        |
| Sulfur               | ppm    | ASTM D5185(m) | 5750      | <b>5229</b>        | 4599        | 4979        |
| Visc @ 40°C          | cSt    | ASTM D7279(m) | 101       | <b>94.2</b>        | 93.5        | 96.5        |
| Visc @ 100°C         | cSt    | ASTM D7279(m) | 10.9      | <b>11.9</b>        | 11.8        | 12.2        |
| Viscosity Index (VI) | Scale  | ASTM D2270*   | 90        | <b>117</b>         | 116         | 118         |



ISO 17025:2017  
Accredited  
Laboratory

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

**Sample No.** : PC0084371

**Lab Number** : 02618457

**Unique Number** : 5735567

**Test Package** : MOB 1 ( Additional Tests: KV100, VI )

**Received** : 27 Feb 2024

**Tested** : 27 Feb 2024

**Diagnosed** : 28 Feb 2024 - Kevin Marson

**LES ENTREPRISES MICHAUVILLE INC.**

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CA J3H 0M6

Contact: Martin Trudel

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T:

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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.