



# OIL ANALYSIS REPORT

|                 |        |
|-----------------|--------|
| WEAR            | NORMAL |
| CONTAMINATION   | NORMAL |
| FLUID CONDITION | NORMAL |

Machine Id  
**1369**  
 Component  
**Rear Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- 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>WC0932511</b>   | WC0913027   | WC0865000   |
| Sample Date    |     | Client Info |           | <b>26 Apr 2024</b> | 27 Feb 2024 | 11 Oct 2023 |
| Machine Age    | hrs | Client Info |           | <b>33798</b>       | 35295       | 34270       |
| Oil Age        | hrs | Client Info |           | <b>953</b>         | 479         | 494         |
| Filter Age     | hrs | Client Info |           | <b>953</b>         | 479         | 494         |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## WEAR

All component wear rates are normal.

|          |     |               |      |              |    |    |
|----------|-----|---------------|------|--------------|----|----|
| Iron     | ppm | ASTM D5185(m) | >100 | <b>9</b>     | 8  | 8  |
| Chromium | ppm | ASTM D5185(m) | >20  | <b>&lt;1</b> | <1 | <1 |
| Nickel   | ppm | ASTM D5185(m) | >4   | <b>0</b>     | <1 | 0  |
| Titanium | ppm | ASTM D5185(m) |      | <b>0</b>     | 0  | 0  |
| Silver   | ppm | ASTM D5185(m) | >3   | <b>0</b>     | 0  | <1 |
| Aluminum | ppm | ASTM D5185(m) | >20  | <b>&lt;1</b> | 0  | <1 |
| Lead     | ppm | ASTM D5185(m) | >40  | <b>0</b>     | 0  | <1 |
| Copper   | ppm | ASTM D5185(m) | >330 | <b>&lt;1</b> | <1 | 1  |
| Tin      | ppm | ASTM D5185(m) | >15  | <b>0</b>     | 0  | 0  |
| Vanadium | ppm | ASTM D5185(m) |      | <b>0</b>     | 0  | 0  |

## CONTAMINATION

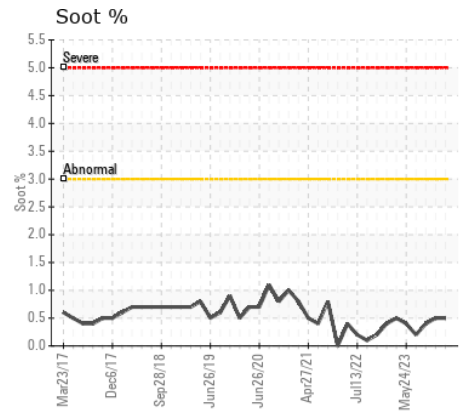
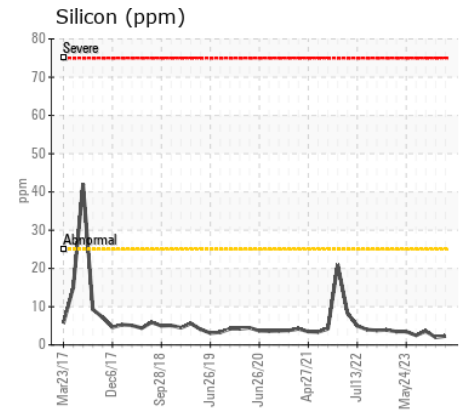
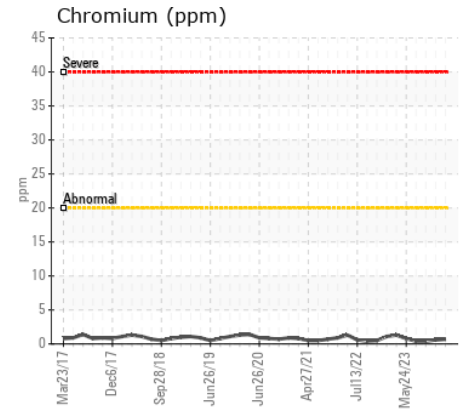
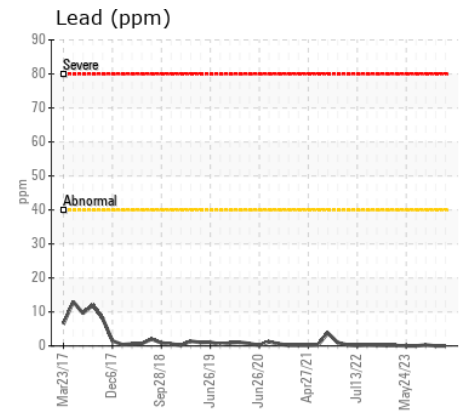
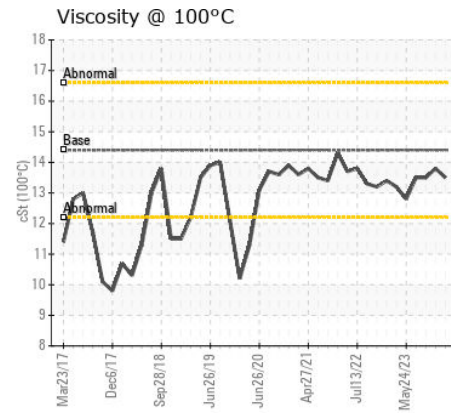
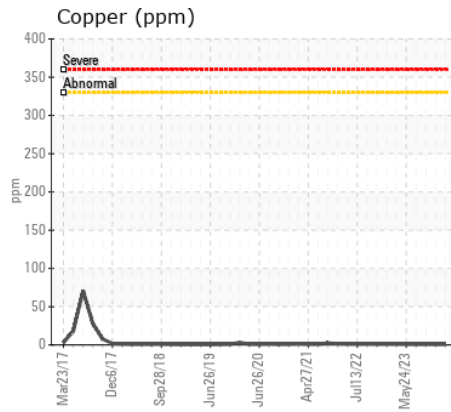
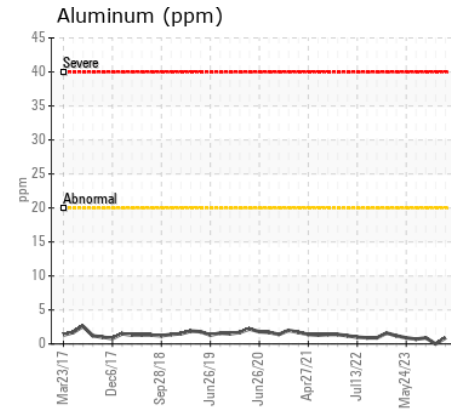
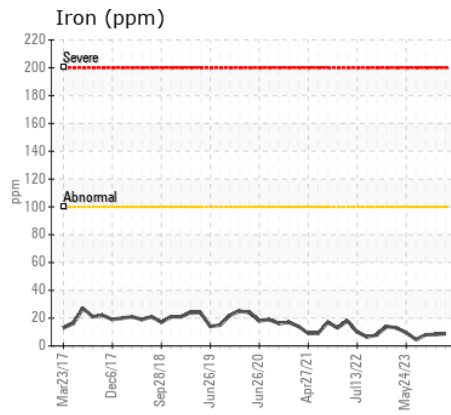
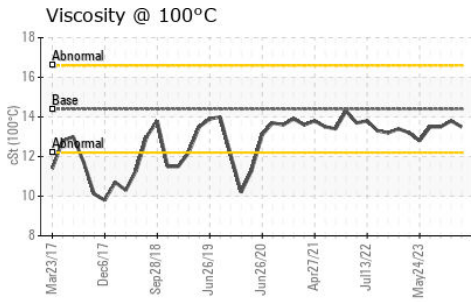
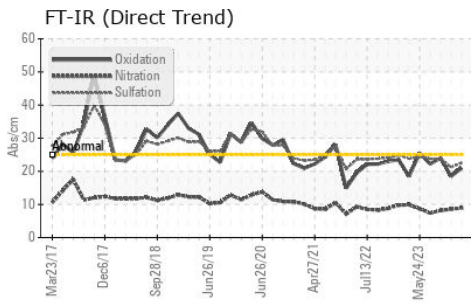
There is no indication of any contamination in the oil.

|                  |          |               |      |                |      |      |
|------------------|----------|---------------|------|----------------|------|------|
| Silicon          | ppm      | ASTM D5185(m) | >25  | <b>2</b>       | 2    | 4    |
| Potassium        | ppm      | ASTM D5185(m) | >20  | <b>0</b>       | 0    | 0    |
| 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>0.5</b>     | 0.5  | 0.4  |
| Nitration        | Abs/cm   | ASTM D7624*   | >20  | <b>8.9</b>     | 8.6  | 8.2  |
| Sulfation        | Abs/.1mm | ASTM D7415*   | >30  | <b>22.5</b>    | 21.2 | 23.8 |
| 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) | >158 | <b>1</b>    | 2    | 3    |
| Boron        | ppm      | ASTM D5185(m) | 250  | <b>1</b>    | <1   | 2    |
| Barium       | ppm      | ASTM D5185(m) | 10   | <b>0</b>    | 0    | <1   |
| Molybdenum   | ppm      | ASTM D5185(m) | 100  | <b>61</b>   | 59   | 59   |
| Manganese    | ppm      | ASTM D5185(m) |      | <b>0</b>    | 0    | 0    |
| Magnesium    | ppm      | ASTM D5185(m) | 450  | <b>986</b>  | 956  | 953  |
| Calcium      | ppm      | ASTM D5185(m) | 3000 | <b>1067</b> | 1084 | 1043 |
| Phosphorus   | ppm      | ASTM D5185(m) | 1150 | <b>987</b>  | 978  | 997  |
| Zinc         | ppm      | ASTM D5185(m) | 1350 | <b>1200</b> | 1186 | 1184 |
| Sulfur       | ppm      | ASTM D5185(m) | 4250 | <b>2481</b> | 2528 | 2501 |
| Oxidation    | Abs/.1mm | ASTM D7414*   | >25  | <b>21.0</b> | 18.5 | 24.0 |
| Visc @ 100°C | cSt      | ASTM D7279(m) | 14.4 | <b>13.5</b> | 13.8 | 13.5 |



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0932511  
**Lab Number** : 02633082  
**Unique Number** : 5774235  
**Test Package** : MOB 1  
**Received** : 03 May 2024  
**Tested** : 03 May 2024  
**Diagnosed** : 03 May 2024 - Wes Davis

**KINGSTON TRANSIT**  
 1181 JOHN COUNTER BLVD  
 KINGSTON, ON  
 CA K7K 6C7  
 Contact: Brent Gunter  
 bgunter@cityofkingston.ca  
 T: (613)546-4291  
 F: (613)542-1504

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.