



# OIL ANALYSIS REPORT

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

Machine Id  
**TOYOTA 846-4634**  
Component  
**Diesel Engine**  
Fluid  
**MOBIL DELVAC ELITE 15W40 (--- GAL)**

## RECOMMENDATION

We advise that you check the fuel injection system. 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.

## WEAR

All component wear rates are normal.

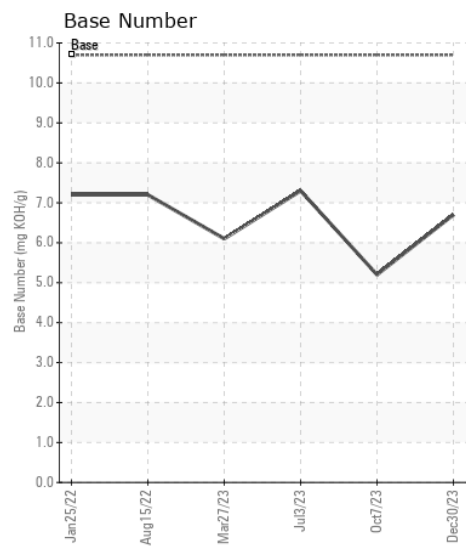
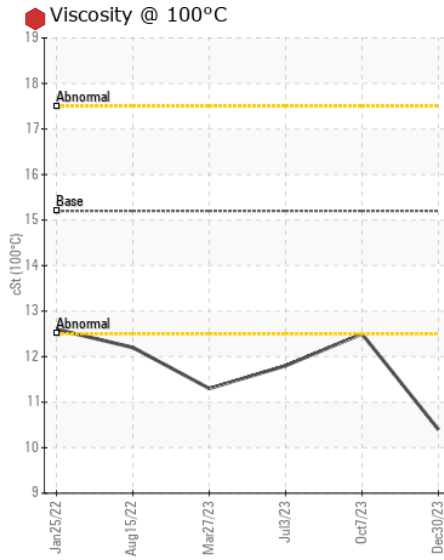
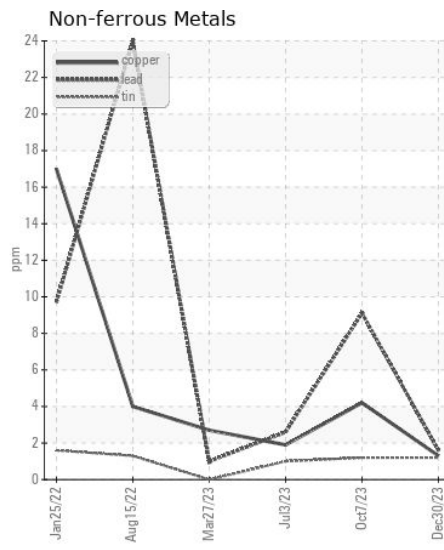
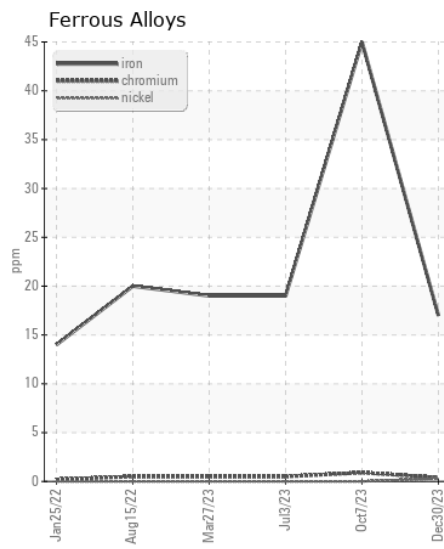
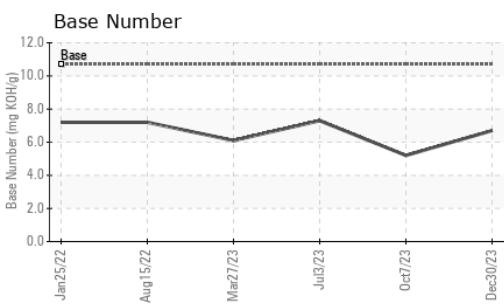
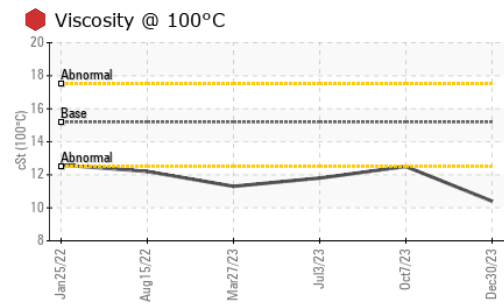
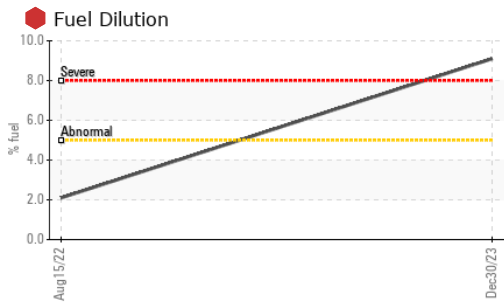
## CONTAMINATION

There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

## FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

| Test             | UOM      | Method      | Limit/Abn | Current            | History1    | History2    |
|------------------|----------|-------------|-----------|--------------------|-------------|-------------|
| Sample Number    |          | Client Info |           | <b>RPL0017351</b>  | RPL0015506  | RPL0013495  |
| Sample Date      |          | Client Info |           | <b>30 Dec 2023</b> | 07 Oct 2023 | 03 Jul 2023 |
| Machine Age      | mls      | Client Info |           | <b>134531</b>      | 124385      | 114555      |
| Oil Age          | mls      | Client Info |           | <b>10146</b>       | 19394       | 9564        |
| Filter Age       | mls      | Client Info |           | <b>10146</b>       | 19394       | 0           |
| Oil Changed      |          | Client Info |           | <b>Not Changd</b>  | Changed     | Not Changd  |
| Filter Changed   |          | Client Info |           | <b>Not Changd</b>  | Changed     | Changed     |
| Sample Status    |          |             |           | <b>SEVERE</b>      | NORMAL      | ATTENTION   |
| Iron             | ppm      | ASTM D5185m | >100      | <b>17</b>          | 45          | 19          |
| Chromium         | ppm      | ASTM D5185m | >20       | <b>&lt;1</b>       | <1          | <1          |
| Nickel           | ppm      | ASTM D5185m | >4        | <b>&lt;1</b>       | 0           | 0           |
| Titanium         | ppm      | ASTM D5185m |           | <b>0</b>           | 0           | 0           |
| Silver           | ppm      | ASTM D5185m | >3        | <b>&lt;1</b>       | 0           | <1          |
| Aluminum         | ppm      | ASTM D5185m | >20       | <b>3</b>           | 4           | 5           |
| Lead             | ppm      | ASTM D5185m | >40       | <b>2</b>           | 9           | 3           |
| Copper           | ppm      | ASTM D5185m | >330      | <b>1</b>           | 4           | 2           |
| Tin              | ppm      | ASTM D5185m | >15       | <b>1</b>           | 1           | 1           |
| Vanadium         | ppm      | ASTM D5185m |           | <b>0</b>           | 0           | 0           |
| White Metal      | scalar   | *Visual     | NONE      | <b>NONE</b>        | NONE        | NONE        |
| Yellow Metal     | scalar   | *Visual     | NONE      | <b>NONE</b>        | NONE        | NONE        |
| Silicon          | ppm      | ASTM D5185m | >25       | <b>3</b>           | 5           | 4           |
| Potassium        | ppm      | ASTM D5185m | >20       | <b>0</b>           | 0           | 1           |
| Fuel             | %        | ASTM D3524  | >5        | <b>9.1</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>0.6</b>         | 1.3         | 0.7         |
| Nitration        | Abs/cm   | *ASTM D7624 | >20       | <b>10.5</b>        | 14.5        | 11.3        |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30       | <b>22.0</b>        | 28.6        | 22.5        |
| Silt             | scalar   | *Visual     | NONE      | <b>NONE</b>        | NONE        | NONE        |
| 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     | >0.2      | <b>NEG</b>         | NEG         | NEG         |
| Sodium           | ppm      | ASTM D5185m |           | <b>0</b>           | 3           | 2           |
| Boron            | ppm      | ASTM D5185m |           | <b>0</b>           | 0           | 2           |
| Barium           | ppm      | ASTM D5185m |           | <b>0</b>           | 0           | 0           |
| Molybdenum       | ppm      | ASTM D5185m |           | <b>57</b>          | 59          | 62          |
| Manganese        | ppm      | ASTM D5185m |           | <b>&lt;1</b>       | 1           | <1          |
| Magnesium        | ppm      | ASTM D5185m |           | <b>906</b>         | 851         | 990         |
| Calcium          | ppm      | ASTM D5185m |           | <b>974</b>         | 1036        | 1124        |
| Phosphorus       | ppm      | ASTM D5185m |           | <b>959</b>         | 819         | 1058        |
| Zinc             | ppm      | ASTM D5185m |           | <b>1203</b>        | 1056        | 1278        |
| Sulfur           | ppm      | ASTM D5185m |           | <b>2891</b>        | 2455        | 3717        |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25       | <b>22.1</b>        | 30.2        | 22.0        |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 10.7      | <b>6.7</b>         | 5.2         | 7.3         |
| Visc @ 100°C     | cSt      | ASTM D445   | 15.2      | <b>10.4</b>        | 12.5        | ▲ 11.8      |



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RPL0017351 **Received** : 11 Jan 2024  
**Lab Number** : 06057843 **Diagnosed** : 15 Jan 2024  
**Unique Number** : 10829225 **Diagnostician** : Wes Davis  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**RTL PACLEASE - 7006 - Pico Rivera**  
 7837 Telegraph Rd  
 Pico Rivera, CA  
 US 90660  
 Contact: Rudy Trevizo  
 TrevizoR@RushEnterprises.Com  
 T:  
 F:

Certificate L2367  
 To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)