



# WEAR CHECK

## OIL ANALYSIS REPORT

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

Area

**[Z20135]**

Machine Id

**DAF LEB879**

Component

**Diesel Engine**

Fluid

**CASTROL VECTON 10W40 (40 LTR)**

### RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>WC06189898</b>  | WC06009984  | WC05906156  |
| Sample Date    |     | Client Info |           | <b>10 May 2024</b> | 02 Nov 2023 | 10 Jul 2023 |
| Machine Age    | kms | Client Info |           | <b>463538</b>      | 396675      | 37133       |
| Oil Age        | kms | Client Info |           | <b>66863</b>       | 43679       | 18737       |
| Filter Age     | kms | Client Info |           | <b>66863</b>       | 43679       | 18737       |
| 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 D5185m | >100 | <b>10</b>    | 4    | 4    |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>&lt;1</b> | <1   | 0    |
| Nickel       | ppm    | ASTM D5185m | >4   | <b>&lt;1</b> | 0    | 0    |
| Titanium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | 0    | 0    |
| Silver       | ppm    | ASTM D5185m | >3   | <b>&lt;1</b> | 0    | <1   |
| Aluminum     | ppm    | ASTM D5185m | >20  | <b>4</b>     | 4    | 2    |
| Lead         | ppm    | ASTM D5185m | >40  | <b>&lt;1</b> | 0    | 0    |
| Copper       | ppm    | ASTM D5185m | >330 | <b>2</b>     | <1   | 1    |
| Tin          | ppm    | ASTM D5185m | >15  | <b>1</b>     | 0    | 0    |
| Vanadium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | 0    | 0    |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

### CONTAMINATION

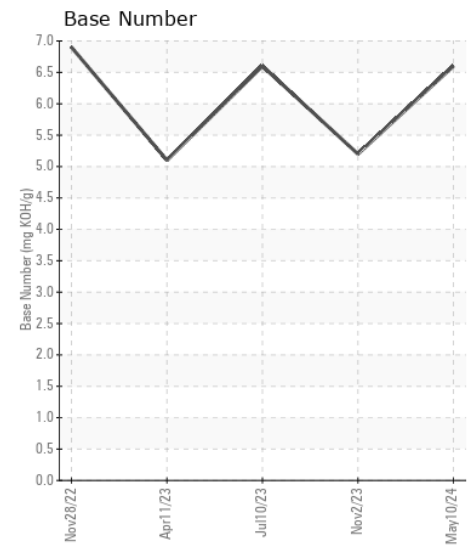
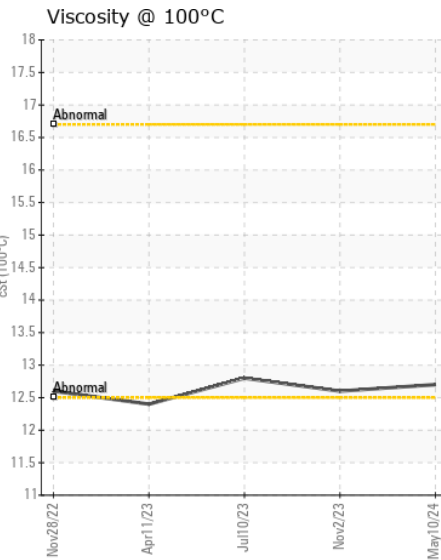
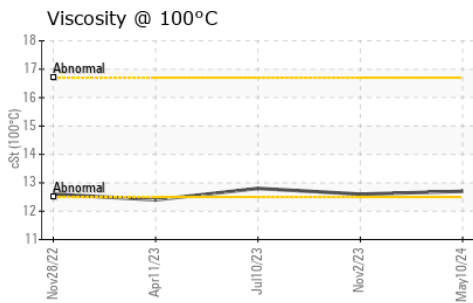
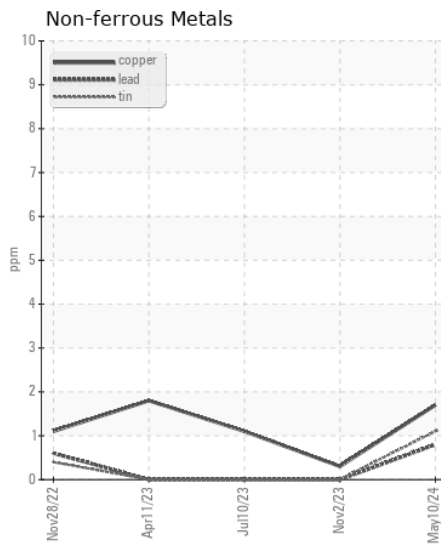
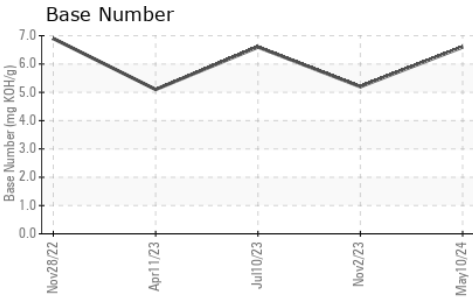
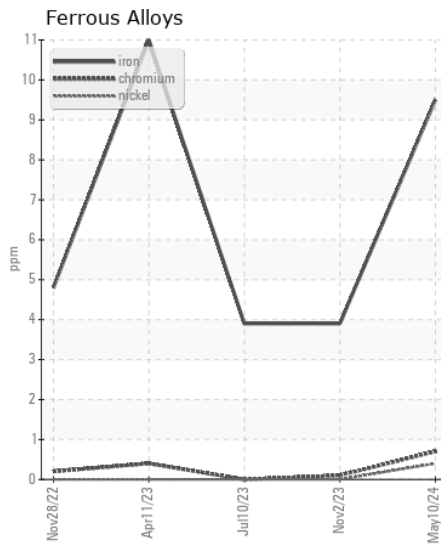
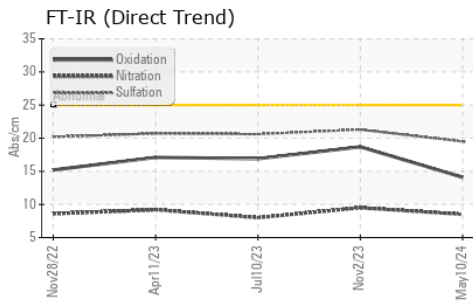
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>14</b>      | 16    | 12    |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>3</b>       | 0     | 2     |
| 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>0.7</b>     | 0.2   | 0.2   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>8.5</b>     | 9.5   | 8.0   |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>19.5</b>    | 21.3  | 20.6  |
| 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   |

### FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

|                  |          |             |     |              |      |      |
|------------------|----------|-------------|-----|--------------|------|------|
| Sodium           | ppm      | ASTM D5185m |     | <b>0</b>     | 0    | 0    |
| Boron            | ppm      | ASTM D5185m |     | <b>295</b>   | 235  | 377  |
| Barium           | ppm      | ASTM D5185m |     | <b>0</b>     | 0    | <1   |
| Molybdenum       | ppm      | ASTM D5185m |     | <b>208</b>   | 90   | 94   |
| Manganese        | ppm      | ASTM D5185m |     | <b>&lt;1</b> | <1   | <1   |
| Magnesium        | ppm      | ASTM D5185m |     | <b>563</b>   | 379  | 364  |
| Calcium          | ppm      | ASTM D5185m |     | <b>1839</b>  | 1857 | 1897 |
| Phosphorus       | ppm      | ASTM D5185m |     | <b>712</b>   | 627  | 641  |
| Zinc             | ppm      | ASTM D5185m |     | <b>874</b>   | 729  | 769  |
| Sulfur           | ppm      | ASTM D5185m |     | <b>3203</b>  | 2400 | 2569 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25 | <b>14.1</b>  | 18.7 | 16.9 |
| Base Number (BN) | mg KOH/g | ASTM D2896  |     | <b>6.6</b>   | 5.2  | 6.6  |
| Visc @ 100°C     | cSt      | ASTM D445   |     | <b>12.7</b>  | 12.6 | 12.8 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC06189898  
**Lab Number** : 06189898  
**Unique Number** : 11046650  
**Test Package** : FLEET

**Received** : 23 May 2024  
**Tested** : 25 May 2024  
**Diagnosed** : 29 May 2024 - Sean Felton

**TR GROUP**  
 781 GREAT SOUTH RD  
 PENROSE AUCKLAND, ZZ  
 NZ 1061  
 Contact: DAVE TENNANT  
 dave.tennant@trgroup.co.nz

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)

T:  
F: