



# WEAR CHECK

## OIL ANALYSIS REPORT

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

Machine Id  
**KENWORTH 3011**  
 Component  
**Diesel Engine**  
 Fluid  
**CHEVRON SUPREME MOTOR OIL 10W40 (--- QTS)**

### 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>WC0906869</b>   | WC0863269   | WC0663167   |
| Sample Date    |     | Client Info |           | <b>12 Apr 2024</b> | 17 Jan 2024 | 09 Oct 2023 |
| Machine Age    | mls | Client Info |           | <b>416281</b>      | 395290      | 377878      |
| Oil Age        | mls | Client Info |           | <b>399998</b>      | 352395      | 25583       |
| Filter Age     | mls | Client Info |           | <b>16283</b>       | 42895       | 25583       |
| Oil Changed    |     | Client Info |           | <b>Not Changd</b>  | Not Changd  | Not Changd  |
| Filter Changed |     | Client Info |           | <b>Not Changd</b>  | Not Changd  | Not Changd  |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

### WEAR

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >100 | <b>7</b>     | 16   | 12   |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>0</b>     | <1   | <1   |
| Nickel       | ppm    | ASTM D5185m | >4   | <b>0</b>     | <1   | 1    |
| Titanium     | ppm    | ASTM D5185m |      | <b>0</b>     | <1   | <1   |
| Silver       | ppm    | ASTM D5185m | >3   | <b>0</b>     | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >20  | <b>4</b>     | 6    | 5    |
| Lead         | ppm    | ASTM D5185m | >40  | <b>&lt;1</b> | 0    | 0    |
| Copper       | ppm    | ASTM D5185m | >330 | <b>7</b>     | 5    | 6    |
| Tin          | ppm    | ASTM D5185m | >15  | <b>&lt;1</b> | <1   | <1   |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | <1   |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

### CONTAMINATION

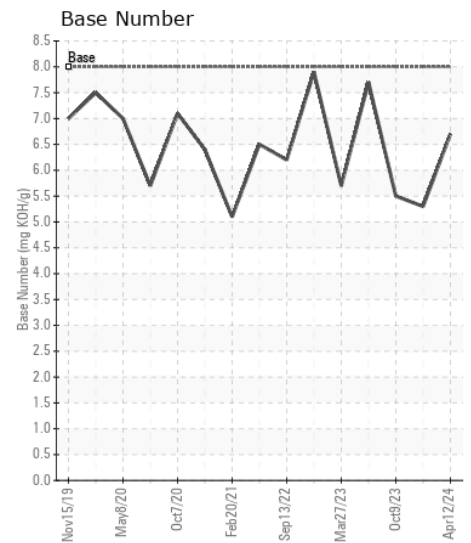
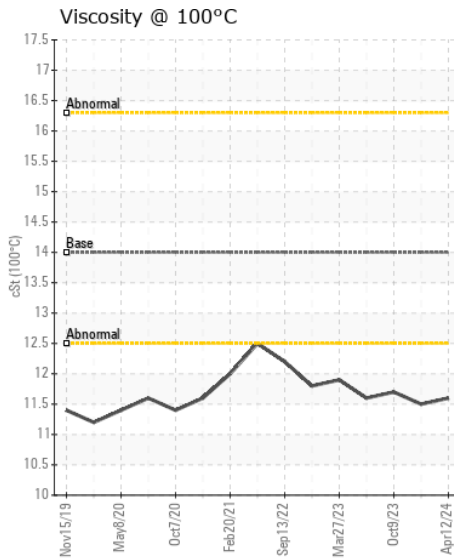
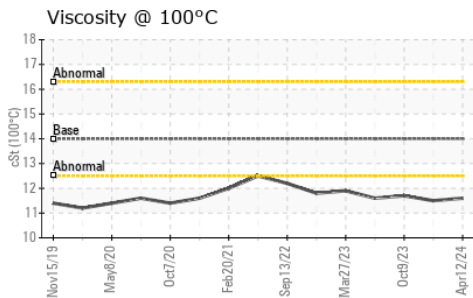
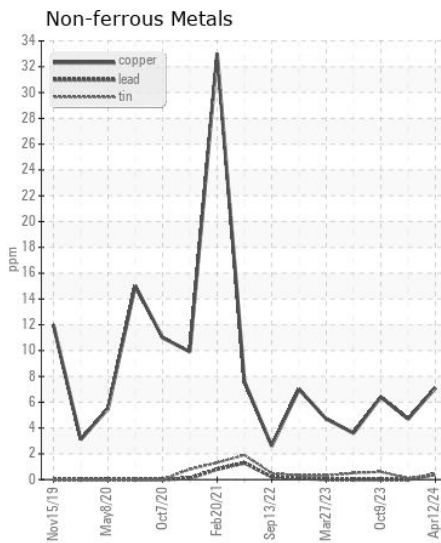
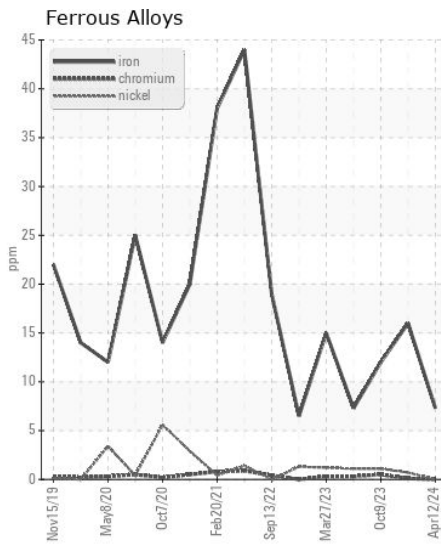
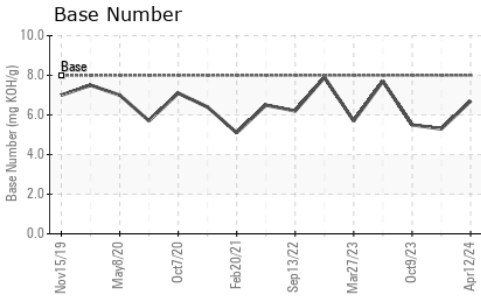
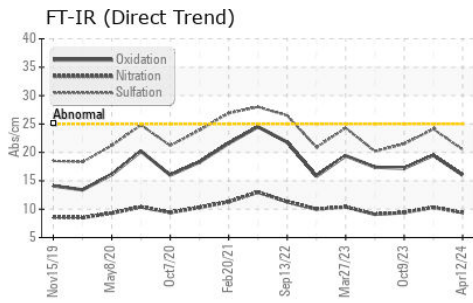
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>8</b>       | 9     | 8     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>24</b>      | 6     | 6     |
| Fuel             | %        | ASTM D3524  | >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>0.3</b>     | 0.5   | 0.4   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>9.4</b>     | 10.3  | 9.4   |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>20.5</b>    | 24.1  | 21.5  |
| 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   |

### 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>4</b>     | 3    | 4    |
| Boron            | ppm      | ASTM D5185m |      | <b>71</b>    | 29   | 32   |
| Barium           | ppm      | ASTM D5185m |      | <b>0</b>     | 0    | 3    |
| Molybdenum       | ppm      | ASTM D5185m |      | <b>51</b>    | 6    | 8    |
| Manganese        | ppm      | ASTM D5185m |      | <b>&lt;1</b> | <1   | <1   |
| Magnesium        | ppm      | ASTM D5185m |      | <b>768</b>   | 779  | 698  |
| Calcium          | ppm      | ASTM D5185m |      | <b>1325</b>  | 1403 | 1314 |
| Phosphorus       | ppm      | ASTM D5185m | 990  | <b>747</b>   | 764  | 654  |
| Zinc             | ppm      | ASTM D5185m | 1100 | <b>820</b>   | 834  | 758  |
| Sulfur           | ppm      | ASTM D5185m |      | <b>3572</b>  | 2906 | 2579 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>16.0</b>  | 19.5 | 17.2 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 8.0  | <b>6.7</b>   | 5.3  | 5.5  |
| Visc @ 100°C     | cSt      | ASTM D445   | 14.0 | <b>11.6</b>  | 11.5 | 11.7 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0906869  
**Lab Number** : 06153753  
**Unique Number** : 10983831  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

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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)