



# OIL ANALYSIS REPORT

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

Machine Id  
**3174**  
 Component  
**Diesel Engine**  
 Fluid  
**CHEVRON DELO 400 XLE 10W30 (--- 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>WC0863242</b>   | WC0863274   | WC0663126   |
| Sample Date    |     | Client Info |           | <b>27 Jan 2024</b> | 14 Dec 2023 | 18 Jan 2023 |
| Machine Age    | mls | Client Info |           | <b>92971</b>       | 79890       | 75654       |
| Oil Age        | mls | Client Info |           | <b>12889</b>       | 46020       | 29634       |
| Filter Age     | mls | Client Info |           | <b>12889</b>       | 33870       | 29634       |
| Oil Changed    |     | Client Info |           | <b>Not Changd</b>  | Changed     | Not Changd  |
| Filter Changed |     | Client Info |           | <b>Not Changd</b>  | Changed     | Not Changd  |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## WEAR

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >100 | <b>15</b>    | 24   | 21   |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>&lt;1</b> | <1   | <1   |
| Nickel       | ppm    | ASTM D5185m | >4   | <b>2</b>     | 3    | 2    |
| Titanium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | <1   | <1   |
| Silver       | ppm    | ASTM D5185m | >3   | <b>0</b>     | <1   | 0    |
| Aluminum     | ppm    | ASTM D5185m | >20  | <b>8</b>     | 14   | 12   |
| Lead         | ppm    | ASTM D5185m | >40  | <b>&lt;1</b> | 0    | 0    |
| Copper       | ppm    | ASTM D5185m | >330 | <b>4</b>     | 11   | 9    |
| Tin          | ppm    | ASTM D5185m | >15  | <b>&lt;1</b> | <1   | <1   |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | <1   | 0    |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

## CONTAMINATION

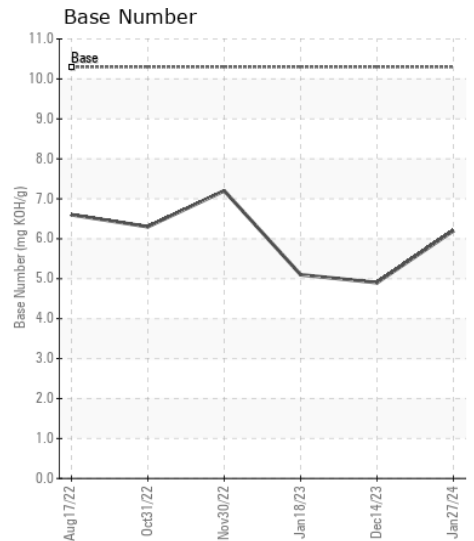
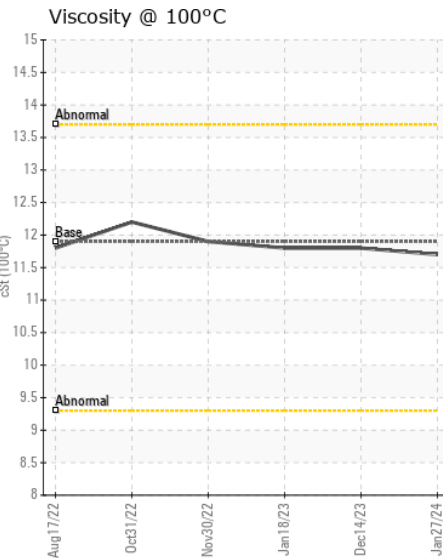
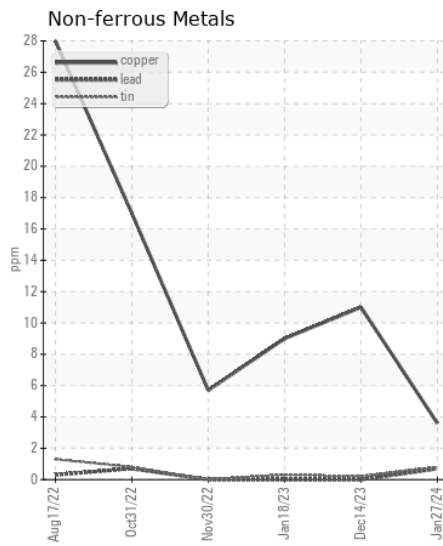
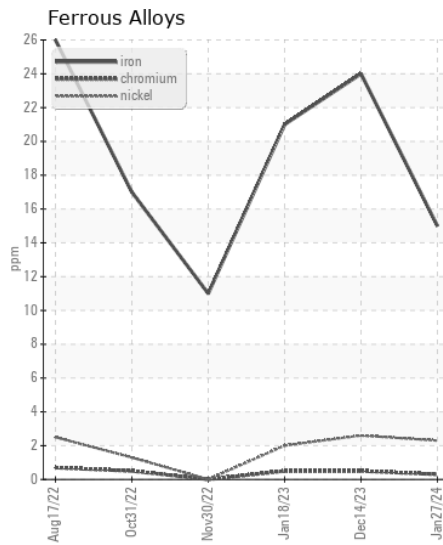
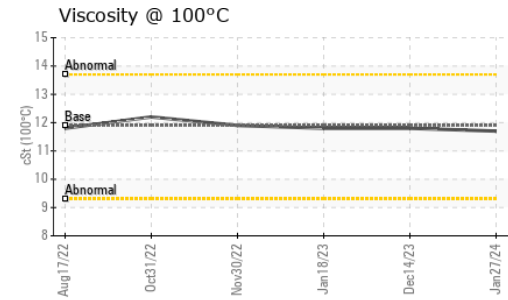
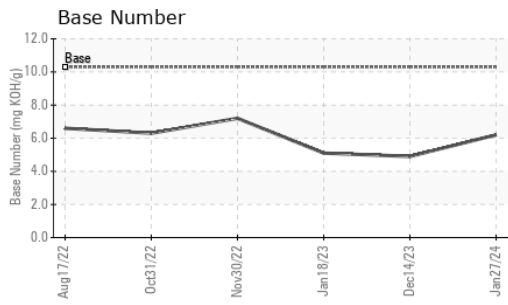
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>7</b>       | 7     | 6     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>11</b>      | 28    | 23    |
| 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>0.4</b>     | 0.6   | 0.5   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>10.1</b>    | 11.4  | 10.8  |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>20.8</b>    | 25.0  | 23.9  |
| 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>2</b>     | 5    | 1    |
| Boron            | ppm      | ASTM D5185m |      | <b>36</b>    | 16   | 18   |
| Barium           | ppm      | ASTM D5185m |      | <b>0</b>     | <1   | <1   |
| Molybdenum       | ppm      | ASTM D5185m |      | <b>&lt;1</b> | 0    | <1   |
| Manganese        | ppm      | ASTM D5185m |      | <b>&lt;1</b> | 1    | <1   |
| Magnesium        | ppm      | ASTM D5185m |      | <b>702</b>   | 806  | 719  |
| Calcium          | ppm      | ASTM D5185m | 2900 | <b>1255</b>  | 1390 | 1328 |
| Phosphorus       | ppm      | ASTM D5185m | 1100 | <b>707</b>   | 814  | 701  |
| Zinc             | ppm      | ASTM D5185m | 1200 | <b>773</b>   | 910  | 836  |
| Sulfur           | ppm      | ASTM D5185m | 4000 | <b>2782</b>  | 3028 | 2733 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>14.9</b>  | 19.2 | 17.7 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 10.3 | <b>6.2</b>   | 4.9  | 5.1  |
| Visc @ 100°C     | cSt      | ASTM D445   | 11.9 | <b>11.7</b>  | 11.8 | 11.8 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0863242 **Received** : 01 Feb 2024  
**Lab Number** : 06077423 **Diagnosed** : 02 Feb 2024  
**Unique Number** : 10859514 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

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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)