



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

Area  
**MARK C**  
Machine Id  
Component  
**[MARK C] 007 543154-7**  
Fluid  
**CHEVRON DELO 400 LE 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>MW0065900</b>   | MW0067909   | MW0065914   |
| Sample Date    |     | Client Info |           | <b>01 Jun 2024</b> | 01 May 2024 | 03 Apr 2024 |
| Machine Age    | hrs | Client Info |           | <b>10143</b>       | 9687        | 9279        |
| Oil Age        | hrs | Client Info |           | <b>132</b>         | 48          | 97          |
| Filter Age     | hrs | Client Info |           | <b>132</b>         | 48          | 97          |
| Oil Changed    |     | Client Info |           | <b>Not Changd</b>  | Changed     | N/A         |
| Filter Changed |     | Client Info |           | <b>Not Changd</b>  | Changed     | N/A         |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

**WEAR**

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >50  | <b>&lt;1</b> | 3    | 1    |
| Chromium     | ppm    | ASTM D5185m | >4   | <b>&lt;1</b> | 0    | 0    |
| Nickel       | ppm    | ASTM D5185m | >2   | <b>0</b>     | 0    | <1   |
| Titanium     | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| Silver       | ppm    | ASTM D5185m | >5   | <b>0</b>     | <1   | 0    |
| Aluminum     | ppm    | ASTM D5185m | >12  | <b>3</b>     | 2    | 4    |
| Lead         | ppm    | ASTM D5185m | >17  | <b>0</b>     | <1   | 0    |
| Copper       | ppm    | ASTM D5185m | >70  | <b>&lt;1</b> | 0    | 0    |
| Tin          | ppm    | ASTM D5185m | >15  | <b>0</b>     | 0    | <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 |

**CONTAMINATION**

There is no indication of any contamination in the oil.

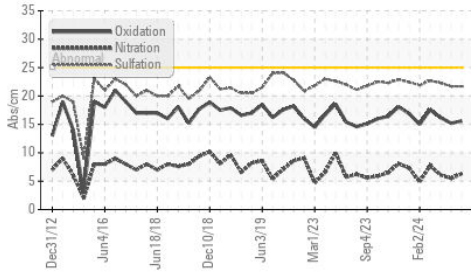
|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>5</b>       | 6     | 6     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>2</b>       | <1    | <1    |
| Fuel             |          | WC Method   | >4.0  | <b>&lt;1.0</b> | <1.0  | <1.0  |
| Water            |          | WC Method   | >0.1  | <b>NEG</b>     | NEG   | NEG   |
| Glycol           |          | WC Method   |       | <b>NEG</b>     | NEG   | NEG   |
| Soot %           | %        | *ASTM D7844 |       | <b>0.1</b>     | 0.1   | 0.1   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>6.3</b>     | 5.5   | 6.1   |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>21.7</b>    | 21.7  | 22.3  |
| 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     | >0.1  | <b>NEG</b>     | NEG   | NEG   |

**FLUID CONDITION**

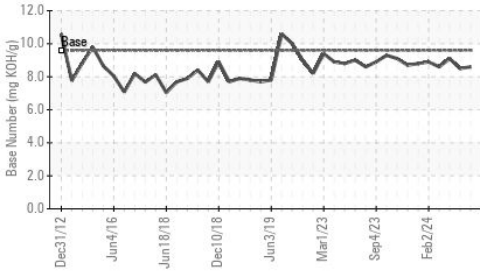
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

|                  |          |             |      |              |      |      |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium           | ppm      | ASTM D5185m |      | <b>2</b>     | 0    | 2    |
| Boron            | ppm      | ASTM D5185m |      | <b>377</b>   | 389  | 362  |
| Barium           | ppm      | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| Molybdenum       | ppm      | ASTM D5185m |      | <b>116</b>   | 117  | 121  |
| Manganese        | ppm      | ASTM D5185m |      | <b>&lt;1</b> | <1   | <1   |
| Magnesium        | ppm      | ASTM D5185m |      | <b>570</b>   | 646  | 659  |
| Calcium          | ppm      | ASTM D5185m |      | <b>1619</b>  | 1807 | 1587 |
| Phosphorus       | ppm      | ASTM D5185m | 1200 | <b>736</b>   | 895  | 716  |
| Zinc             | ppm      | ASTM D5185m | 1300 | <b>1011</b>  | 1067 | 837  |
| Sulfur           | ppm      | ASTM D5185m | 3200 | <b>2809</b>  | 3558 | 3070 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>15.6</b>  | 15.2 | 16.2 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 9.6  | <b>8.6</b>   | 8.5  | 9.1  |
| Visc @ 100°C     | cSt      | ASTM D445   | 15.7 | <b>13.3</b>  | 13.6 | 13.4 |

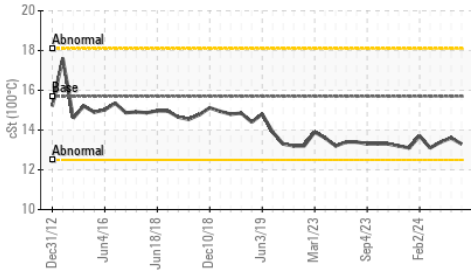
**FT-IR (Direct Trend)**



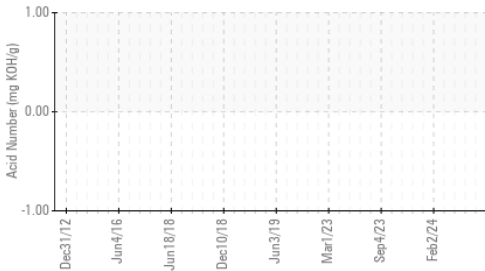
**Base Number**



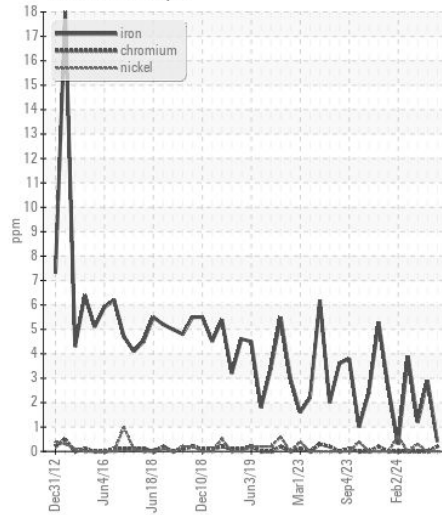
**Viscosity @ 100°C**



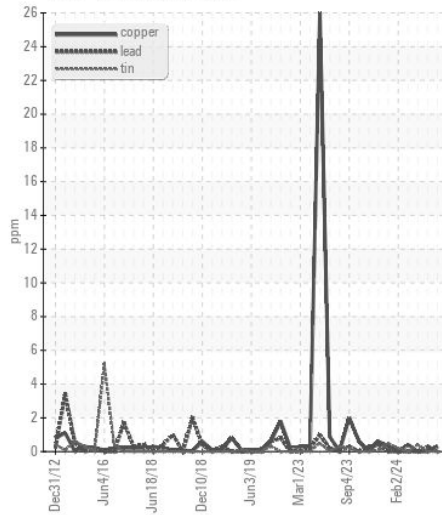
**Acid Number**



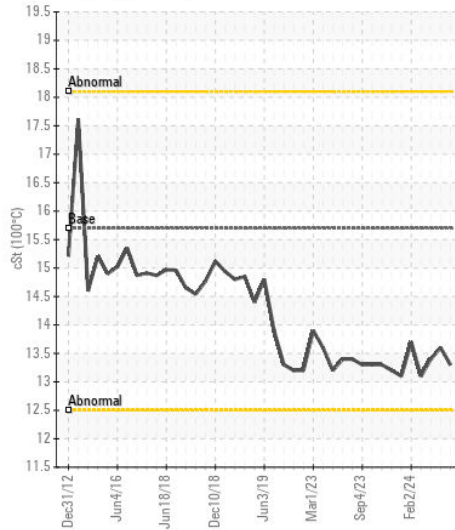
**Ferrous Alloys**



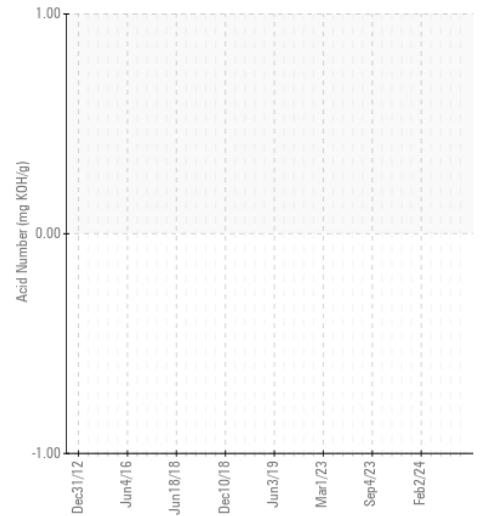
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Acid Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0065900 **Received** : 26 Jun 2024  
**Lab Number** : 06221028 **Tested** : 27 Jun 2024  
**Unique Number** : 11099225 **Diagnosed** : 27 Jun 2024 - Don Baldrige  
**Test Package** : MAR 2 ( Additional Tests: TAN Man )

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)

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