



PacLease

# OIL ANALYSIS REPORT

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

Machine Id  
**139-373**  
 Component  
**Diesel Engine**  
 Fluid  
**CHEVRON DELO 400 MULTIGRADE 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>RPL0019695</b>  | RPL0019636  | RPL0016667  |
| Sample Date    |     | Client Info |           | <b>02 Jul 2024</b> | 19 Apr 2024 | 01 Mar 2024 |
| Machine Age    | hrs | Client Info |           | <b>594568</b>      | 523967      | 418439      |
| Oil Age        | hrs | Client Info |           | <b>489040</b>      | 523967      | 418439      |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>N/A</b>         | N/A         | N/A         |
| Filter Changed |     | Client Info |           | <b>N/A</b>         | N/A         | N/A         |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## WEAR

All component wear rates are normal.

|              |        |             |      |             |      |      |
|--------------|--------|-------------|------|-------------|------|------|
| Iron         | ppm    | ASTM D5185m | >90  | <b>38</b>   | 17   | 23   |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>1</b>    | <1   | <1   |
| Nickel       | ppm    | ASTM D5185m | >2   | <b>0</b>    | 0    | 0    |
| Titanium     | ppm    | ASTM D5185m | >2   | <b>2</b>    | 2    | 0    |
| Silver       | ppm    | ASTM D5185m | >2   | <b>0</b>    | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >20  | <b>7</b>    | 6    | 6    |
| Lead         | ppm    | ASTM D5185m | >40  | <b>3</b>    | 3    | 1    |
| Copper       | ppm    | ASTM D5185m | >330 | <b>1</b>    | <1   | 1    |
| Tin          | ppm    | ASTM D5185m | >15  | <b>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.

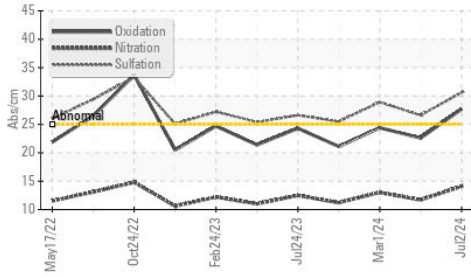
|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>8</b>       | 6     | 7     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>9</b>       | 4     | 5     |
| Fuel             |          | WC Method   | >3.0  | <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 | >6    | <b>1.5</b>     | 0.8   | 1.2   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>14.1</b>    | 11.7  | 13.0  |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>30.6</b>    | 26.6  | 28.9  |
| 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

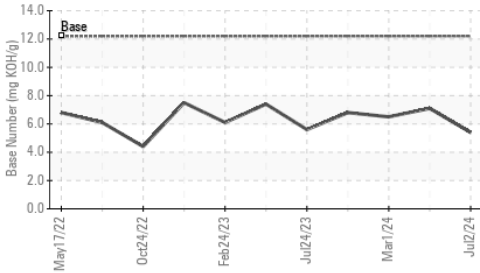
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

|                  |          |             |      |              |      |      |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium           | ppm      | ASTM D5185m |      | <b>3</b>     | 1    | 2    |
| Boron            | ppm      | ASTM D5185m |      | <b>36</b>    | 93   | 71   |
| Barium           | ppm      | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| Molybdenum       | ppm      | ASTM D5185m |      | <b>105</b>   | 117  | 125  |
| Manganese        | ppm      | ASTM D5185m |      | <b>&lt;1</b> | 1    | <1   |
| Magnesium        | ppm      | ASTM D5185m |      | <b>685</b>   | 720  | 673  |
| Calcium          | ppm      | ASTM D5185m |      | <b>1677</b>  | 1639 | 1750 |
| Phosphorus       | ppm      | ASTM D5185m | 1360 | <b>812</b>   | 746  | 744  |
| Zinc             | ppm      | ASTM D5185m | 1480 | <b>960</b>   | 910  | 880  |
| Sulfur           | ppm      | ASTM D5185m |      | <b>3066</b>  | 3002 | 2591 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>27.7</b>  | 22.6 | 24.4 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 12.2 | <b>5.4</b>   | 7.1  | 6.5  |
| Visc @ 100°C     | cSt      | ASTM D445   | 15.1 | <b>13.7</b>  | 13.8 | 14.0 |

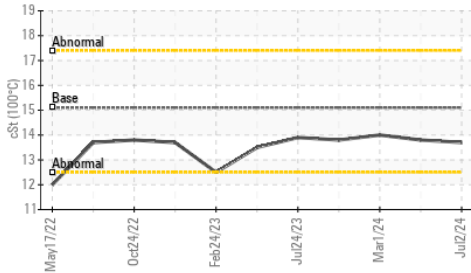
**FT-IR (Direct Trend)**



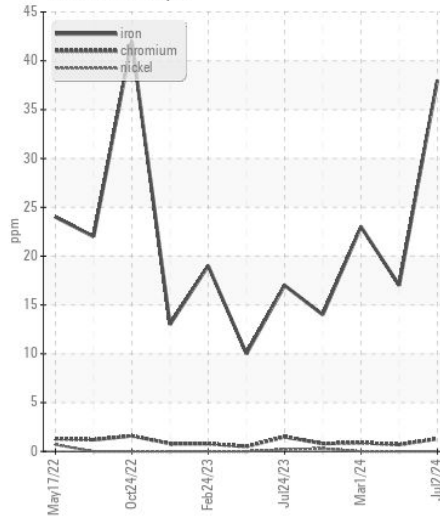
**Base Number**



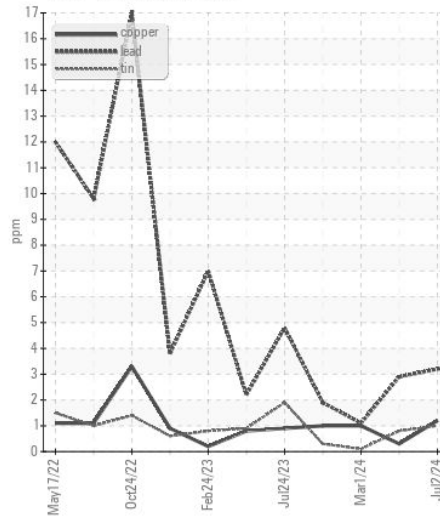
**Viscosity @ 100°C**



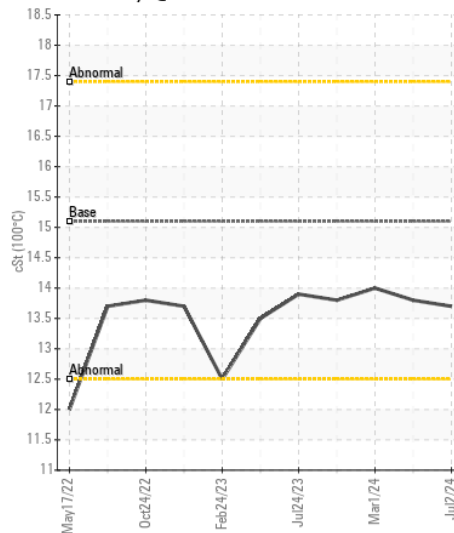
**Ferrous Alloys**



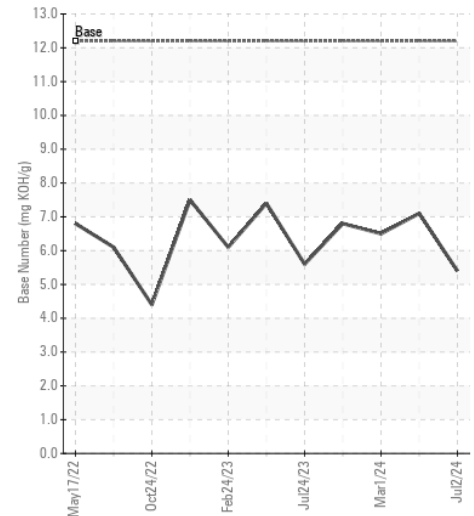
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : RPL0019695

**Lab Number** : 06231934

**Unique Number** : 11115427

**Test Package** : FLEET

**Received** : 10 Jul 2024

**Tested** : 10 Jul 2024

**Diagnosed** : 11 Jul 2024 - Don Baldridge

**RTL PACLEASE - 7005 - Arlington**

1900 E Division

Arlington, TX

US 76011

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F:

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)