



# VOLVO

## OIL ANALYSIS REPORT

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



Machine Id  
**VOLVO A30G 742411**  
Component  
**Diesel Engine**  
Fluid  
**VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>VCP439108</b>   | VCP356914   | VCP303611   |
| Sample Date    |     | Client Info |           | <b>22 Feb 2024</b> | 05 Apr 2022 | 21 Apr 2021 |
| Machine Age    | hrs | Client Info |           | <b>5942</b>        | 4282        | 3024        |
| Oil Age        | hrs | Client Info |           | <b>0</b>           | 1000        | 0           |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | ATTENTION   |

### WEAR

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >100 | <b>64</b>    | 14   | 6    |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>1</b>     | <1   | <1   |
| Nickel       | ppm    | ASTM D5185m | >2   | <b>0</b>     | 2    | 0    |
| Titanium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | <1   | <1   |
| Silver       | ppm    | ASTM D5185m | >2   | <b>0</b>     | <1   | 0    |
| Aluminum     | ppm    | ASTM D5185m | >25  | <b>2</b>     | 1    | 0    |
| Lead         | ppm    | ASTM D5185m | >40  | <b>0</b>     | 2    | <1   |
| Copper       | ppm    | ASTM D5185m | >330 | <b>3</b>     | 2    | 1    |
| Tin          | ppm    | ASTM D5185m | >15  | <b>2</b>     | 2    | <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

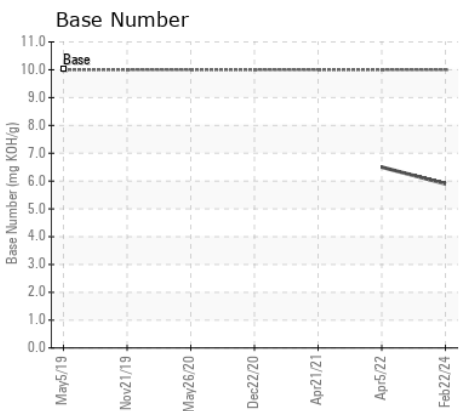
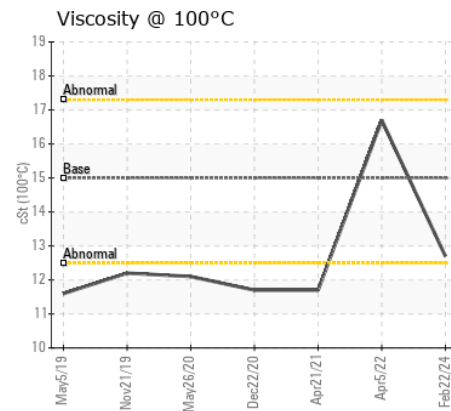
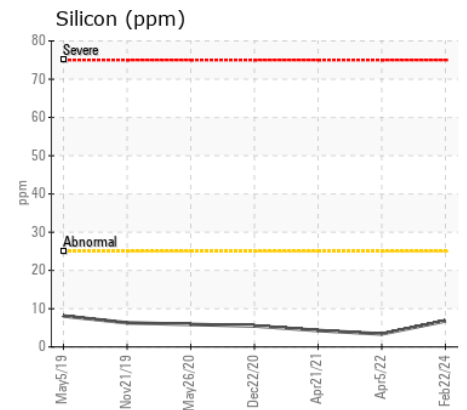
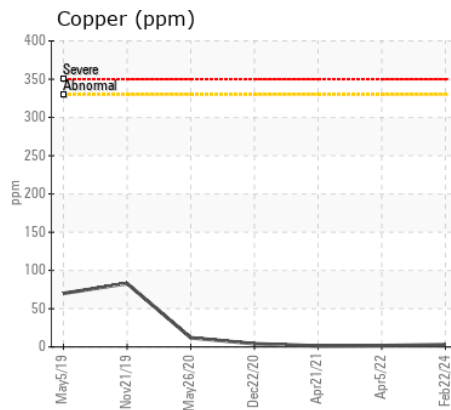
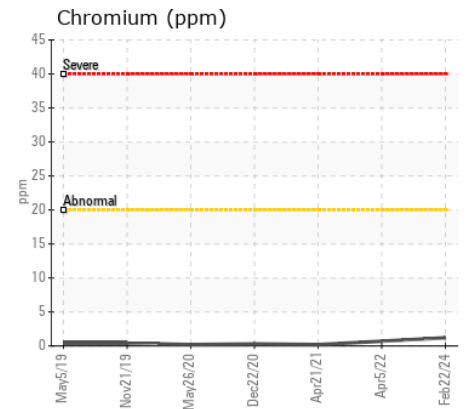
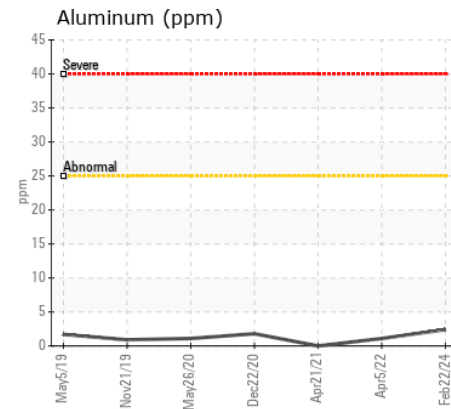
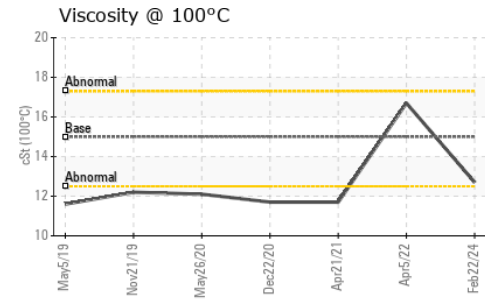
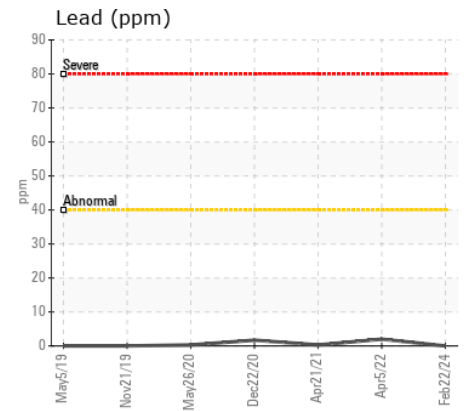
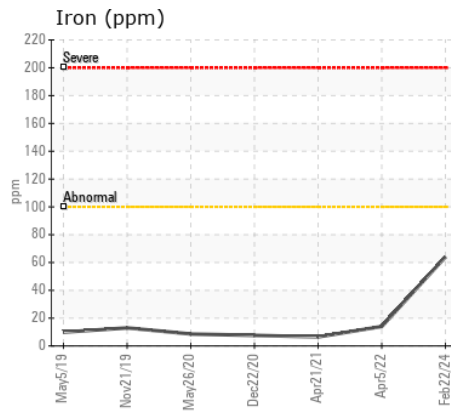
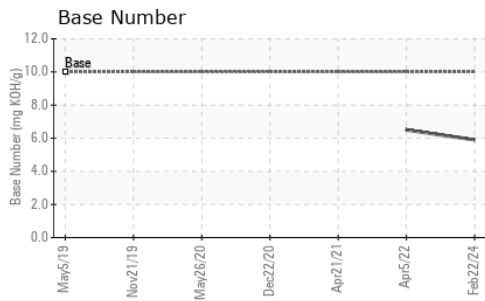
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>7</b>       | 3     | 4     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>0</b>       | 8     | <1    |
| Fuel             |          | WC Method   | >6.0  | <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 | >3    | <b>0.6</b>     | 0.8   | 0.2   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>9.5</b>     | 12.2  | 7.5   |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>22.9</b>    | 25.9  | 23.4  |
| 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>6</b>    | 3    | 2      |
| Boron            | ppm      | ASTM D5185m | 2.5  | <b>18</b>   | 9    | 46     |
| Barium           | ppm      | ASTM D5185m | 0.0  | <b>0</b>    | 0    | 0      |
| Molybdenum       | ppm      | ASTM D5185m | 0.7  | <b>45</b>   | 26   | 39     |
| Manganese        | ppm      | ASTM D5185m | 0.0  | <b>2</b>    | <1   | <1     |
| Magnesium        | ppm      | ASTM D5185m | 256  | <b>391</b>  | 325  | 466    |
| Calcium          | ppm      | ASTM D5185m | 2057 | <b>1674</b> | 1058 | 1641   |
| Phosphorus       | ppm      | ASTM D5185m | 935  | <b>830</b>  | 599  | 914    |
| Zinc             | ppm      | ASTM D5185m | 1223 | <b>946</b>  | 685  | 1020   |
| Sulfur           | ppm      | ASTM D5185m | 4079 | <b>2513</b> | 1803 | 2522   |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>19.3</b> | 23.5 | 21.1   |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 10   | <b>5.9</b>  | 6.5  | ---    |
| Visc @ 100°C     | cSt      | ASTM D445   | 15.0 | <b>12.7</b> | 16.7 | ▲ 11.7 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP439108 **Received** : 23 Feb 2024  
**Lab Number** : 06098217 **Tested** : 25 Feb 2024  
**Unique Number** : 10896447 **Diagnosed** : 25 Feb 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

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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)