



# VOLVO

## OIL ANALYSIS REPORT

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



Machine Id  
**VOLVO EC250EL 314172**  
Component  
**Hydraulic System**  
Fluid  
**VALVOLINE ALLFLEET 10W (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|----------|
| Sample Number  |     | Client Info |           | <b>VCP437124</b>   | VCP416399   | ---      |
| Sample Date    |     | Client Info |           | <b>23 Jan 2024</b> | 02 Oct 2023 | ---      |
| Machine Age    | hrs | Client Info |           | <b>0</b>           | 2232        | ---      |
| Oil Age        | hrs | Client Info |           | <b>0</b>           | 0           | ---      |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | ---      |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | ---      |
| Filter Changed |     | Client Info |           | <b>N/A</b>         | Changed     | ---      |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | ---      |

### WEAR

All component wear rates are normal.

|              |        |             |      |              |      |     |
|--------------|--------|-------------|------|--------------|------|-----|
| Iron         | ppm    | ASTM D5185m | >25  | <b>3</b>     | 1    | --- |
| Chromium     | ppm    | ASTM D5185m | >10  | <b>&lt;1</b> | <1   | --- |
| Nickel       | ppm    | ASTM D5185m | >10  | <b>0</b>     | 0    | --- |
| Titanium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | 0    | --- |
| Silver       | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | --- |
| Aluminum     | ppm    | ASTM D5185m | >20  | <b>&lt;1</b> | 0    | --- |
| Lead         | ppm    | ASTM D5185m | >20  | <b>&lt;1</b> | 0    | --- |
| Copper       | ppm    | ASTM D5185m | >150 | <b>9</b>     | 12   | --- |
| Tin          | ppm    | ASTM D5185m | >10  | <b>&lt;1</b> | <1   | --- |
| Vanadium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | 0    | --- |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | --- |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | --- |

### CONTAMINATION

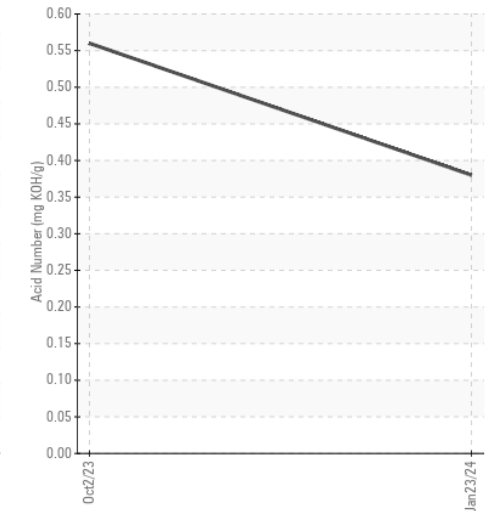
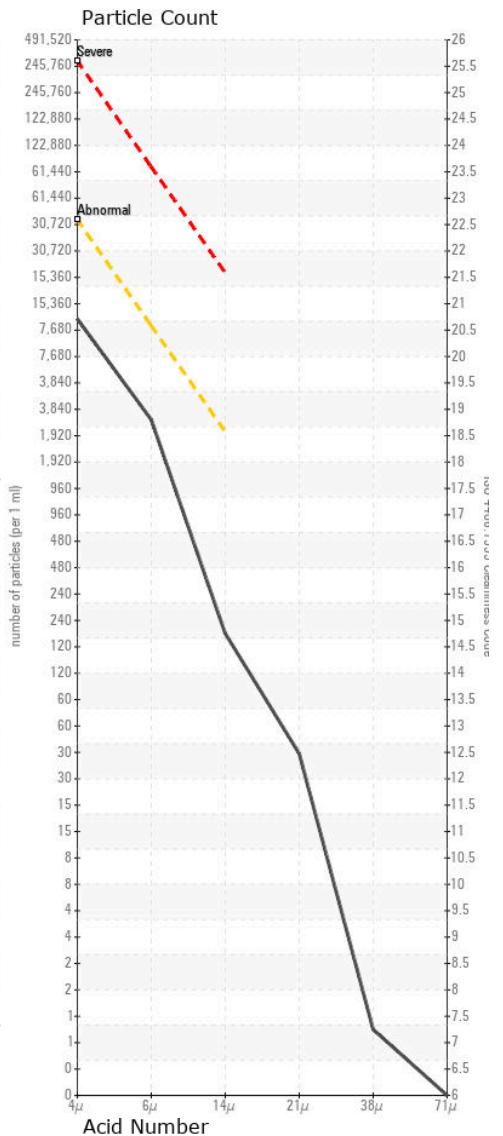
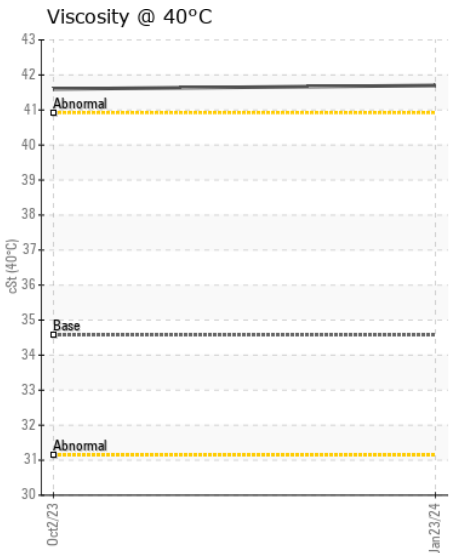
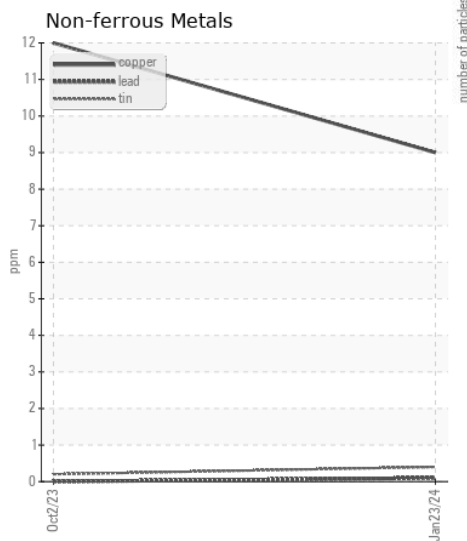
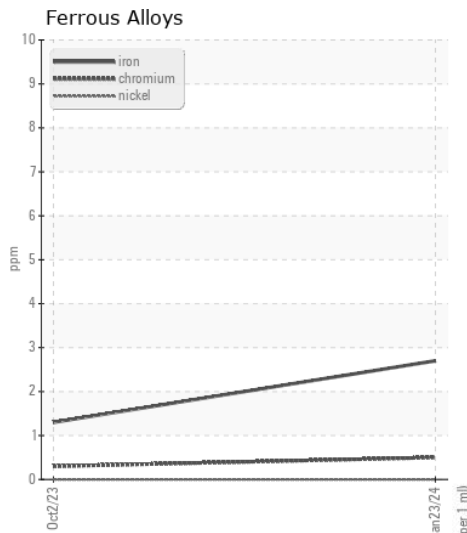
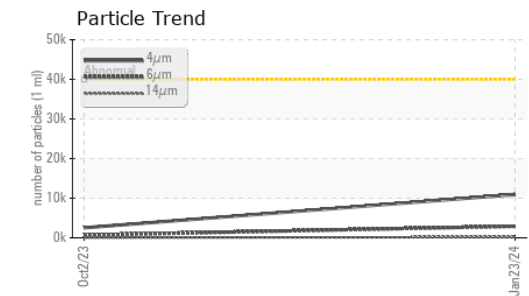
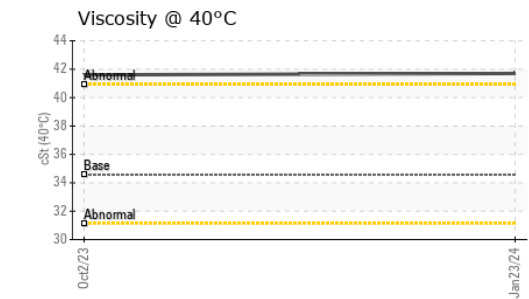
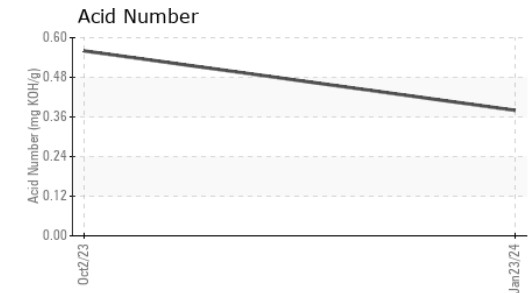
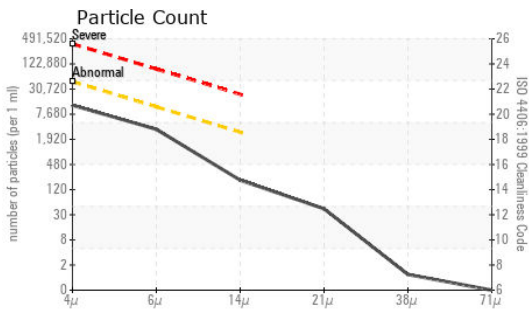
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

|                  |        |              |           |                 |          |     |
|------------------|--------|--------------|-----------|-----------------|----------|-----|
| Silicon          | ppm    | ASTM D5185m  | >50       | <b>4</b>        | 3        | --- |
| Potassium        | ppm    | ASTM D5185m  | >20       | <b>0</b>        | 0        | --- |
| Water            |        | WC Method    | >0.1      | <b>NEG</b>      | NEG      | --- |
| Particles >4µm   |        | ASTM D7647   | >40000    | <b>10939</b>    | 2534     | --- |
| Particles >6µm   |        | ASTM D7647   | >10000    | <b>2922</b>     | 691      | --- |
| Particles >14µm  |        | ASTM D7647   | >2500     | <b>178</b>      | 48       | --- |
| Particles >21µm  |        | ASTM D7647   | >640      | <b>37</b>       | 11       | --- |
| Particles >38µm  |        | ASTM D7647   | >160      | <b>1</b>        | 0        | --- |
| Particles >71µm  |        | ASTM D7647   | >40       | <b>0</b>        | 0        | --- |
| Oil Cleanliness  |        | ISO 4406 (c) | >22/20/18 | <b>21/19/15</b> | 19/17/13 | --- |
| Silt             | scalar | *Visual      | NONE      | <b>NONE</b>     | NONE     | --- |
| Debris           | scalar | *Visual      | NONE      | <b>NONE</b>     | NONE     | --- |
| Sand/Dirt        | scalar | *Visual      | NONE      | <b>NONE</b>     | NONE     | --- |
| Appearance       | scalar | *Visual      | NORML     | <b>NORML</b>    | NORML    | --- |
| Odor             | scalar | *Visual      | NORML     | <b>NORML</b>    | NORML    | --- |
| Emulsified Water | scalar | *Visual      | >0.1      | <b>NEG</b>      | NEG      | --- |

### FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

|                  |          |             |       |              |      |     |
|------------------|----------|-------------|-------|--------------|------|-----|
| Sodium           | ppm      | ASTM D5185m |       | <b>2</b>     | 1    | --- |
| Boron            | ppm      | ASTM D5185m |       | <b>8</b>     | 0    | --- |
| Barium           | ppm      | ASTM D5185m |       | <b>0</b>     | 0    | --- |
| Molybdenum       | ppm      | ASTM D5185m |       | <b>6</b>     | 0    | --- |
| Manganese        | ppm      | ASTM D5185m |       | <b>&lt;1</b> | <1   | --- |
| Magnesium        | ppm      | ASTM D5185m |       | <b>67</b>    | 2    | --- |
| Calcium          | ppm      | ASTM D5185m |       | <b>782</b>   | 91   | --- |
| Phosphorus       | ppm      | ASTM D5185m |       | <b>585</b>   | 451  | --- |
| Zinc             | ppm      | ASTM D5185m |       | <b>675</b>   | 570  | --- |
| Sulfur           | ppm      | ASTM D5185m |       | <b>2370</b>  | 1721 | --- |
| Acid Number (AN) | mg KOH/g | ASTM D8045  |       | <b>0.38</b>  | 0.56 | --- |
| Visc @ 40°C      | cSt      | ASTM D445   | 34.57 | <b>41.7</b>  | 41.6 | --- |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP437124 **Received** : 31 Jan 2024  
**Lab Number** : 06075656 **Diagnosed** : 01 Feb 2024  
**Unique Number** : 10857747 **Diagnostician** : Don Baldrige  
**Test Package** : MOB 2

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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