



# VOLVO

## OIL ANALYSIS REPORT

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



Area  
**[8000389977]**  
 Machine Id  
**VOLVO EC220EL 315112**  
 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>VCP393144</b>   | ---      | ---      |
| Sample Date    |     | Client Info |           | <b>04 Jan 2024</b> | ---      | ---      |
| Machine Age    | hrs | Client Info |           | <b>654</b>         | ---      | ---      |
| Oil Age        | hrs | Client Info |           | <b>654</b>         | ---      | ---      |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | ---      | ---      |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | ---      | ---      |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | ---      | ---      |
| Sample Status  |     |             |           | <b>NORMAL</b>      | ---      | ---      |

### WEAR

Metal levels are typical for a components first oil change.

|          |     |               |      |              |     |     |
|----------|-----|---------------|------|--------------|-----|-----|
| Iron     | ppm | ASTM D5185(m) | >100 | <b>25</b>    | --- | --- |
| Chromium | ppm | ASTM D5185(m) | >10  | <b>&lt;1</b> | --- | --- |
| Nickel   | ppm | ASTM D5185(m) | >10  | <b>2</b>     | --- | --- |
| Titanium | ppm | ASTM D5185(m) |      | <b>0</b>     | --- | --- |
| Silver   | ppm | ASTM D5185(m) | >2   | <b>0</b>     | --- | --- |
| Aluminum | ppm | ASTM D5185(m) | >10  | <b>4</b>     | --- | --- |
| Lead     | ppm | ASTM D5185(m) | >20  | <b>&lt;1</b> | --- | --- |
| Copper   | ppm | ASTM D5185(m) | >15  | <b>2</b>     | --- | --- |
| Tin      | ppm | ASTM D5185(m) | >10  | <b>1</b>     | --- | --- |
| Vanadium | ppm | ASTM D5185(m) |      | <b>0</b>     | --- | --- |

### CONTAMINATION

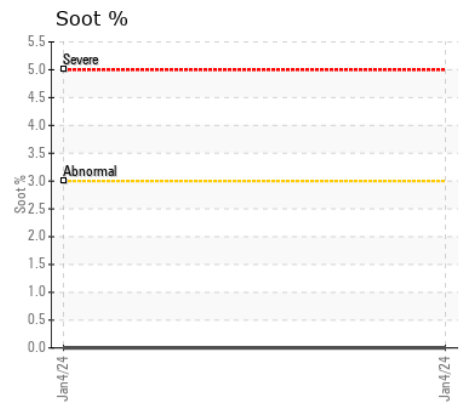
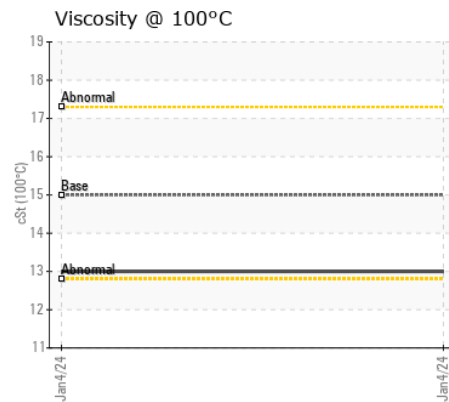
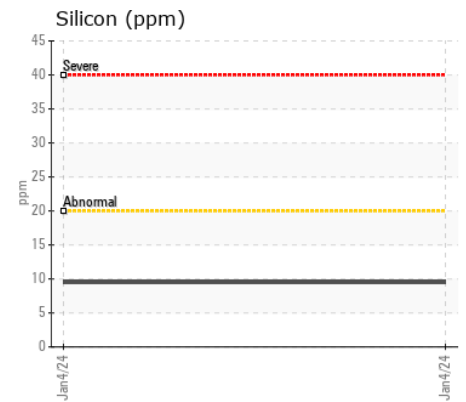
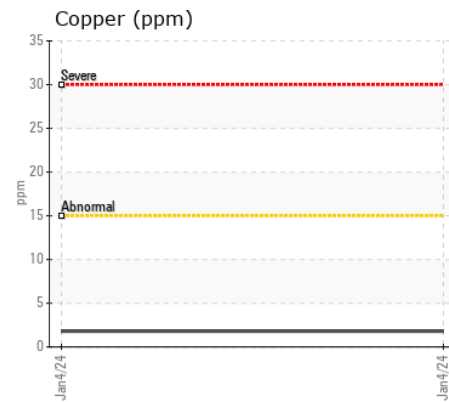
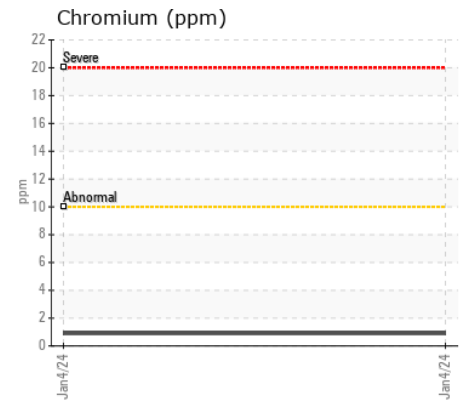
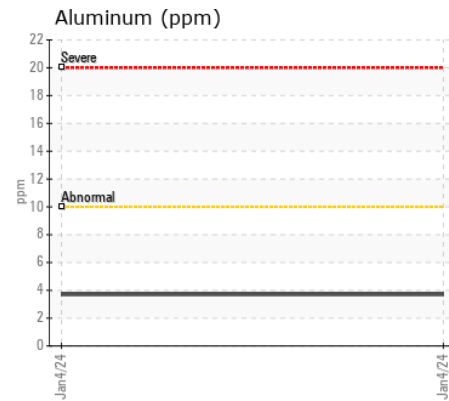
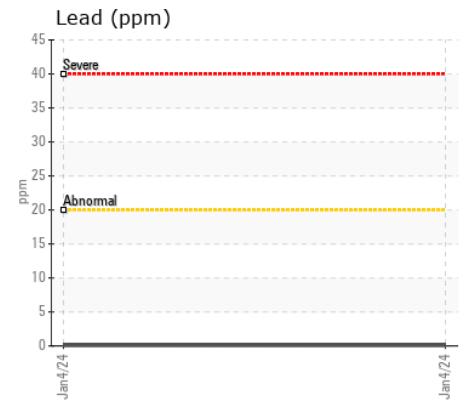
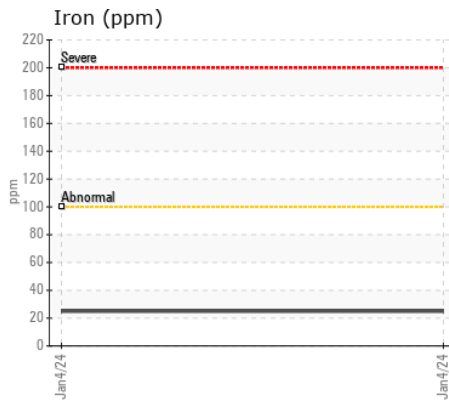
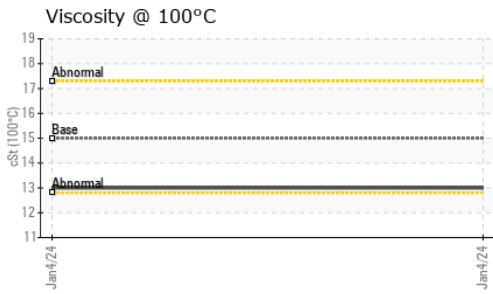
There is no indication of any contamination in the oil.

|                  |          |               |      |                |     |     |
|------------------|----------|---------------|------|----------------|-----|-----|
| Silicon          | ppm      | ASTM D5185(m) | >20  | <b>10</b>      | --- | --- |
| Potassium        | ppm      | ASTM D5185(m) | >20  | <b>&lt;1</b>   | --- | --- |
| Fuel             |          | WC Method     | >6.0 | <b>&lt;1.0</b> | --- | --- |
| Water            |          | WC Method     | >0.1 | <b>NEG</b>     | --- | --- |
| Glycol           |          | WC Method     |      | <b>NEG</b>     | --- | --- |
| Soot %           | %        | ASTM D7844*   | >3   | <b>0</b>       | --- | --- |
| Nitration        | Abs/cm   | ASTM D7624*   | >20  | <b>7.2</b>     | --- | --- |
| Sulfation        | Abs/.1mm | ASTM D7415*   | >30  | <b>22.2</b>    | --- | --- |
| Emulsified Water | scalar   | Visual*       | >0.1 | <b>NEG</b>     | --- | --- |

### FLUID CONDITION

The condition of the oil is acceptable for the time in service.

|              |          |               |      |              |     |     |
|--------------|----------|---------------|------|--------------|-----|-----|
| Sodium       | ppm      | ASTM D5185(m) |      | <b>3</b>     | --- | --- |
| Boron        | ppm      | ASTM D5185(m) | 2.5  | <b>31</b>    | --- | --- |
| Barium       | ppm      | ASTM D5185(m) | 0.0  | <b>&lt;1</b> | --- | --- |
| Molybdenum   | ppm      | ASTM D5185(m) | 0.7  | <b>41</b>    | --- | --- |
| Manganese    | ppm      | ASTM D5185(m) | 0.0  | <b>&lt;1</b> | --- | --- |
| Magnesium    | ppm      | ASTM D5185(m) | 256  | <b>477</b>   | --- | --- |
| Calcium      | ppm      | ASTM D5185(m) | 2057 | <b>1756</b>  | --- | --- |
| Phosphorus   | ppm      | ASTM D5185(m) | 935  | <b>938</b>   | --- | --- |
| Zinc         | ppm      | ASTM D5185(m) | 1223 | <b>1059</b>  | --- | --- |
| Sulfur       | ppm      | ASTM D5185(m) | 4079 | <b>2574</b>  | --- | --- |
| Oxidation    | Abs/.1mm | ASTM D7414*   | >25  | <b>20.1</b>  | --- | --- |
| Visc @ 100°C | cSt      | ASTM D7279(m) | 15.0 | <b>13.0</b>  | --- | --- |



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : VCP393144  
**Lab Number** : 02608671  
**Unique Number** : 5709757  
**Test Package** : MOB 1

**STRONGCO EQUIPMENT INC.**

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*To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.*