



# VOLVO

## OIL ANALYSIS REPORT

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



Area  
**[25641]**

Machine Id  
**VOLVO EC350E 314526**

Component  
**Rear Left Final Drive**

Fluid  
**VOLVO SUPER GEAR OIL 75W-80-GO102 (--- GAL)**

### RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

### WEAR

Gear wear is indicated.

### CONTAMINATION

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

### FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

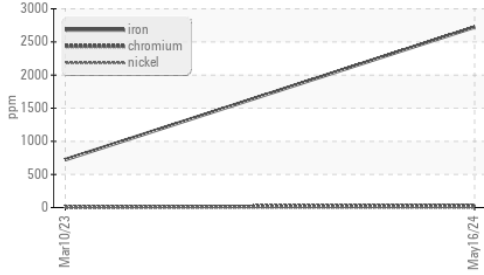
| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|----------|
| Sample Number  |     | Client Info |           | <b>VCP451077</b>   | VCP404396   | ---      |
| Sample Date    |     | Client Info |           | <b>16 May 2024</b> | 10 Mar 2023 | ---      |
| Machine Age    | hrs | Client Info |           | <b>2086</b>        | 400         | ---      |
| Oil Age        | hrs | Client Info |           | <b>0</b>           | 500         | ---      |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | ---      |
| Oil Changed    |     | Client Info |           | <b>N/A</b>         | Changed     | ---      |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | N/A         | ---      |
| Sample Status  |     |             |           | <b>SEVERE</b>      | ABNORMAL    | ---      |

|              |        |             |      |               |       |     |
|--------------|--------|-------------|------|---------------|-------|-----|
| Iron         | ppm    | ASTM D5185m | >500 | <b>▲ 2725</b> | ▲ 723 | --- |
| Chromium     | ppm    | ASTM D5185m | >10  | <b>▲ 30</b>   | 7     | --- |
| Nickel       | ppm    | ASTM D5185m | >10  | <b>2</b>      | 4     | --- |
| Titanium     | ppm    | ASTM D5185m |      | <b>10</b>     | <1    | --- |
| Silver       | ppm    | ASTM D5185m |      | <b>0</b>      | 0     | --- |
| Aluminum     | ppm    | ASTM D5185m | >25  | <b>● 84</b>   | 11    | --- |
| Lead         | ppm    | ASTM D5185m | >25  | <b>0</b>      | 0     | --- |
| Copper       | ppm    | ASTM D5185m | >50  | <b>4</b>      | 40    | --- |
| Tin          | ppm    | ASTM D5185m | >10  | <b>0</b>      | 0     | --- |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>      | 0     | --- |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>   | MODER | --- |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>   | NONE  | --- |

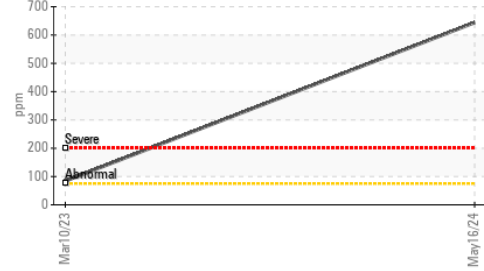
|                  |        |             |       |              |       |     |
|------------------|--------|-------------|-------|--------------|-------|-----|
| Silicon          | ppm    | ASTM D5185m | >75   | <b>▲ 644</b> | ▲ 84  | --- |
| Potassium        | ppm    | ASTM D5185m | >20   | <b>3</b>     | 4     | --- |
| Water            |        | WC Method   | >0.2  | <b>NEG</b>   | NEG   | --- |
| 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     | >0.2  | <b>NEG</b>   | NEG   | --- |

|             |     |             |  |              |       |     |
|-------------|-----|-------------|--|--------------|-------|-----|
| Sodium      | ppm | ASTM D5185m |  | <b>1</b>     | 12    | --- |
| Boron       | ppm | ASTM D5185m |  | <b>174</b>   | 62    | --- |
| Barium      | ppm | ASTM D5185m |  | <b>0</b>     | 0     | --- |
| Molybdenum  | ppm | ASTM D5185m |  | <b>4</b>     | 45    | --- |
| Manganese   | ppm | ASTM D5185m |  | <b>17</b>    | 11    | --- |
| Magnesium   | ppm | ASTM D5185m |  | <b>2</b>     | 11    | --- |
| Calcium     | ppm | ASTM D5185m |  | <b>7</b>     | 21    | --- |
| Phosphorus  | ppm | ASTM D5185m |  | <b>2149</b>  | 2428  | --- |
| Zinc        | ppm | ASTM D5185m |  | <b>6</b>     | 695   | --- |
| Sulfur      | ppm | ASTM D5185m |  | <b>36025</b> | 25056 | --- |
| Visc @ 40°C | cSt | ASTM D445   |  | <b>55.5</b>  | 176   | --- |

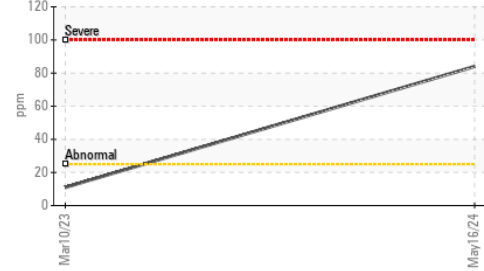
▲ Ferrous Alloys



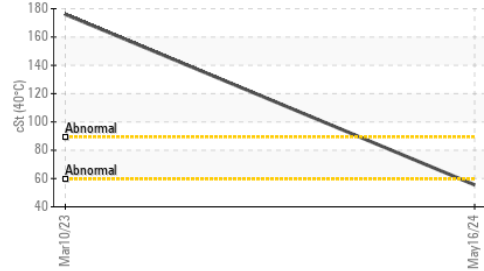
▲ Silicon (ppm)



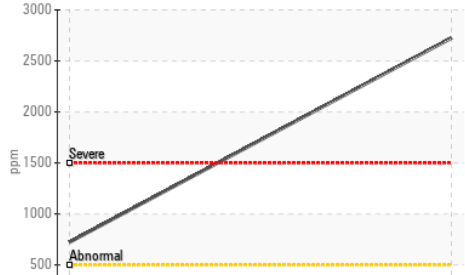
● Aluminum (ppm)



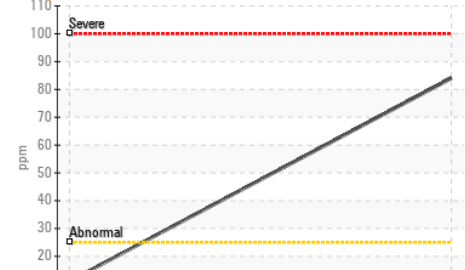
Viscosity @ 40°C



▲ Iron (ppm)



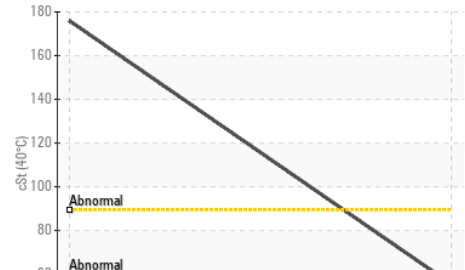
● Aluminum (ppm)



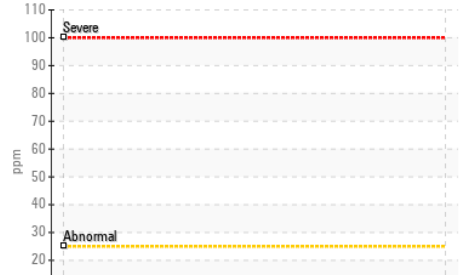
▲ Copper (ppm)



Viscosity @ 40°C



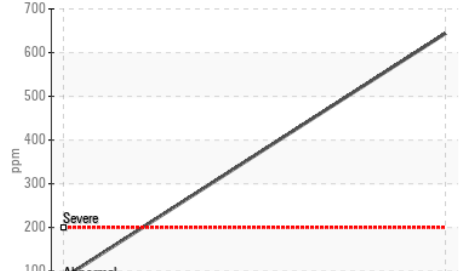
▲ Lead (ppm)



▲ Chromium (ppm)



▲ Silicon (ppm)



Additives



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : VCP451077  
 Lab Number : 06186555  
 Unique Number : 11043307  
 Test Package : MOB 1

Received : 21 May 2024  
 Tested : 22 May 2024  
 Diagnosed : 23 May 2024 - Don Baldrige

218 - ASCENDUM MACHINERY INC - N. CHARLESTON  
 7235 CROSS COUNTRY RD.  
 NORTH CHARLESTON, SC  
 US 29418  
 Contact: MATT MITCHAM  
 matt.mitcham@ascendummachinery.com

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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