



# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**[W/O 11061]**  
 Machine Id  
**VOLVO Ecr145 E 317114**  
 Component  
**Right Travel**  
 Fluid  
**VOLVO PREMIUM GEAR OIL 85W-140 GL-5 (1 GAL)**

## DIAGNOSIS

### Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a new component breaking in.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

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

## SAMPLE INFORMATION

|               | method      | limit/base  | current            | history1 | history2 |
|---------------|-------------|-------------|--------------------|----------|----------|
| Sample Number | Client Info |             | <b>ML0002063</b>   | ---      | ---      |
| Sample Date   | Client Info |             | <b>03 Jul 2024</b> | ---      | ---      |
| Machine Age   | hrs         | Client Info | <b>491</b>         | ---      | ---      |
| Oil Age       | hrs         | Client Info | <b>491</b>         | ---      | ---      |
| Oil Changed   | Client Info |             | <b>Changed</b>     | ---      | ---      |
| Sample Status |             |             | <b>NORMAL</b>      | ---      | ---      |

## CONTAMINATION

|       | method    | limit/base | current    | history1 | history2 |
|-------|-----------|------------|------------|----------|----------|
| Water | WC Method | >0.2       | <b>NEG</b> | ---      | ---      |

## WEAR METALS

|          | method | limit/base       | current      | history1 | history2 |
|----------|--------|------------------|--------------|----------|----------|
| Iron     | ppm    | ASTM D5185m >500 | <b>127</b>   | ---      | ---      |
| Chromium | ppm    | ASTM D5185m >20  | <b>2</b>     | ---      | ---      |
| Nickel   | ppm    | ASTM D5185m >5   | <b>0</b>     | ---      | ---      |
| Titanium | ppm    | ASTM D5185m      | <b>&lt;1</b> | ---      | ---      |
| Silver   | ppm    | ASTM D5185m      | <b>&lt;1</b> | ---      | ---      |
| Aluminum | ppm    | ASTM D5185m >100 | <b>2</b>     | ---      | ---      |
| Lead     | ppm    | ASTM D5185m >10  | <b>0</b>     | ---      | ---      |
| Copper   | ppm    | ASTM D5185m >60  | <b>&lt;1</b> | ---      | ---      |
| Tin      | ppm    | ASTM D5185m >5   | <b>12</b>    | ---      | ---      |
| Vanadium | ppm    | ASTM D5185m      | <b>&lt;1</b> | ---      | ---      |
| Cadmium  | ppm    | ASTM D5185m      | <b>&lt;1</b> | ---      | ---      |

## ADDITIVES

|            | method | limit/base        | current      | history1 | history2 |
|------------|--------|-------------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m 111   | <b>&lt;1</b> | ---      | ---      |
| Barium     | ppm    | ASTM D5185m 0.0   | <b>2</b>     | ---      | ---      |
| Molybdenum | ppm    | ASTM D5185m 0.9   | <b>&lt;1</b> | ---      | ---      |
| Manganese  | ppm    | ASTM D5185m 0.0   | <b>3</b>     | ---      | ---      |
| Magnesium  | ppm    | ASTM D5185m 39    | <b>1</b>     | ---      | ---      |
| Calcium    | ppm    | ASTM D5185m 93    | <b>4</b>     | ---      | ---      |
| Phosphorus | ppm    | ASTM D5185m 920   | <b>305</b>   | ---      | ---      |
| Zinc       | ppm    | ASTM D5185m 104   | <b>16</b>    | ---      | ---      |
| Sulfur     | ppm    | ASTM D5185m 20179 | <b>16175</b> | ---      | ---      |

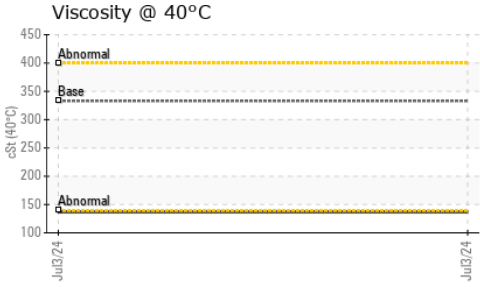
## CONTAMINANTS

|           | method | limit/base       | current      | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >150 | <b>13</b>    | ---      | ---      |
| Sodium    | ppm    | ASTM D5185m      | <b>&lt;1</b> | ---      | ---      |
| Potassium | ppm    | ASTM D5185m >20  | <b>2</b>     | ---      | ---      |

## VISUAL

|                  | method | limit/base    | current      | history1 | history2 |
|------------------|--------|---------------|--------------|----------|----------|
| White Metal      | scalar | *Visual NONE  | <b>NONE</b>  | ---      | ---      |
| Yellow Metal     | scalar | *Visual NONE  | <b>NONE</b>  | ---      | ---      |
| Precipitate      | scalar | *Visual NONE  | <b>NONE</b>  | ---      | ---      |
| Silt             | scalar | *Visual NONE  | <b>NONE</b>  | ---      | ---      |
| Debris           | scalar | *Visual NONE  | <b>NONE</b>  | ---      | ---      |
| Sand/Dirt        | scalar | *Visual NONE  | <b>NONE</b>  | ---      | ---      |
| Appearance       | scalar | *Visual NORML | <b>NORML</b> | ---      | ---      |
| Odor             | scalar | *Visual NORML | <b>NORML</b> | ---      | ---      |
| Emulsified Water | scalar | *Visual >0.2  | <b>NEG</b>   | ---      | ---      |
| Free Water       | scalar | *Visual       | <b>NEG</b>   | ---      | ---      |

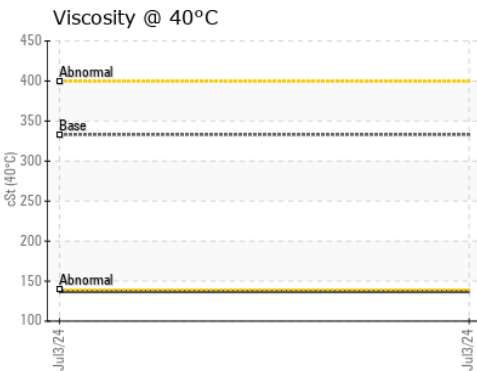
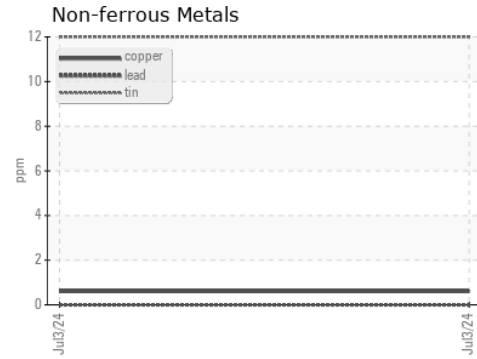
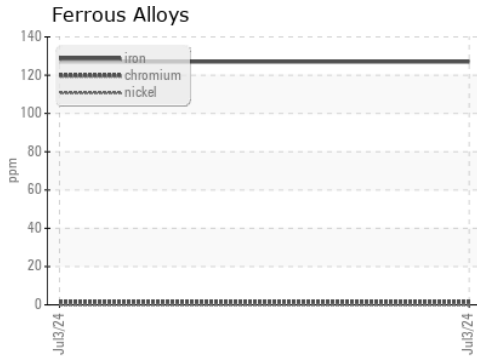
# OIL ANALYSIS REPORT



| FLUID PROPERTIES | method | limit/base    | current    | history1 | history2 |
|------------------|--------|---------------|------------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445 333 | <b>137</b> | ---      | ---      |

| SAMPLE IMAGES | method | limit/base | current  | history1 | history2 |
|---------------|--------|------------|----------|----------|----------|
| Color         |        |            | no image | no image | no image |
| Bottom        |        |            | no image | no image | no image |

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ML0002063  
**Lab Number** : 06234092  
**Unique Number** : 11122926  
**Test Package** : CONST  
**Received** : 11 Jul 2024  
**Tested** : 12 Jul 2024  
**Diagnosed** : 14 Jul 2024 - Don Baldrige

**RELIABLE CONTRACTING**  
 2410 EVERGREEN RD SUITE 200  
 GAMBRILLS, MD  
 US 21054  
 Contact: RUSSELL HATFIELD  
 RHATFIELD@RELIABLECONTRACTING.COM  
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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)