



# VOLVO

## OIL ANALYSIS REPORT

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



Area  
**[79]**  
 Machine Id  
**VOLVO ECR235EL 311786**  
 Component  
**Diesel Engine**  
 Fluid  
**MOBIL 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VC527542</b>	---	---
Sample Date		Client Info		<b>28 Mar 2023</b>	---	---
Machine Age	hrs	Client Info		<b>913</b>	---	---
Oil Age	hrs	Client Info		<b>250</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 new component breaking in.

Iron	ppm	ASTM D5185m	>100	<b>45</b>	---	---
Chromium	ppm	ASTM D5185m	>10	<b>2</b>	---	---
Nickel	ppm	ASTM D5185m	>10	<b>2</b>	---	---
Titanium	ppm	ASTM D5185m		<b>0</b>	---	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>10	<b>8</b>	---	---
Lead	ppm	ASTM D5185m	>20	<b>0</b>	---	---
Copper	ppm	ASTM D5185m	>15	<b>3</b>	---	---
Tin	ppm	ASTM D5185m	>10	<b>1</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

### CONTAMINATION

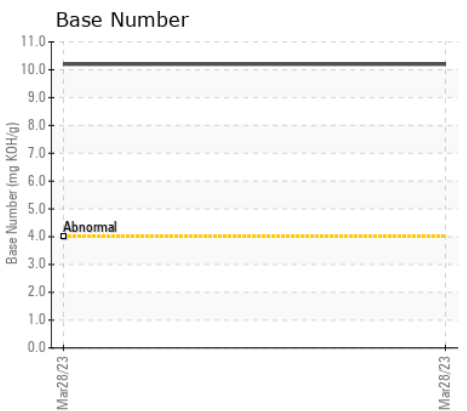
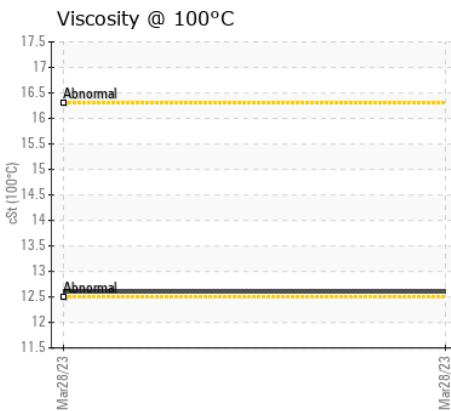
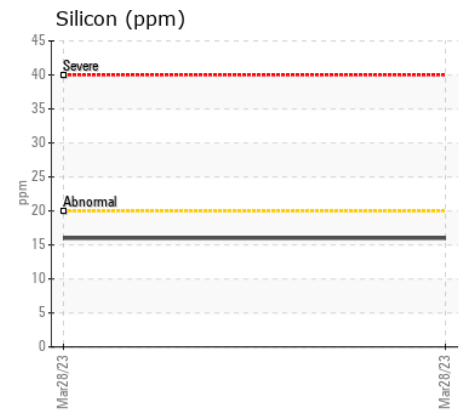
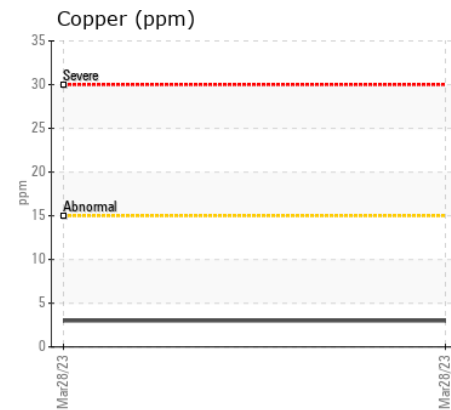
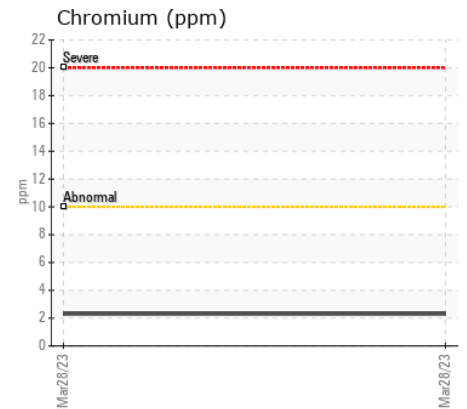
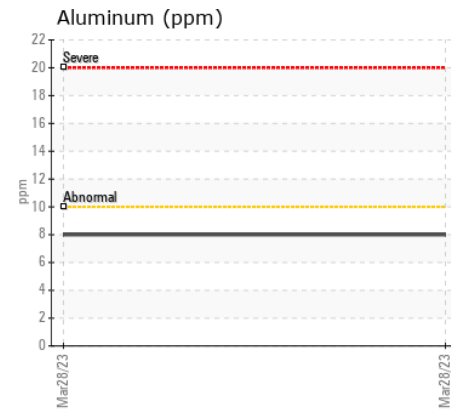
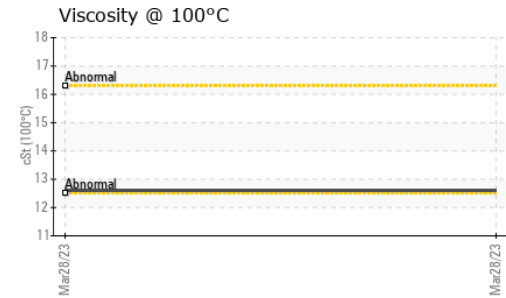
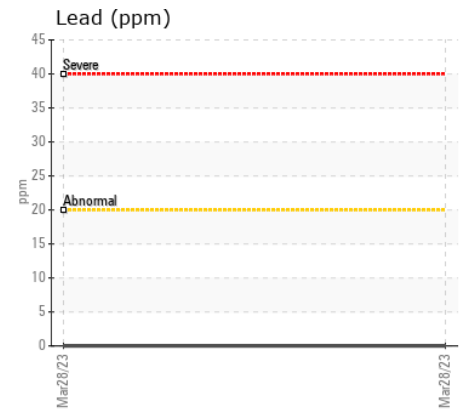
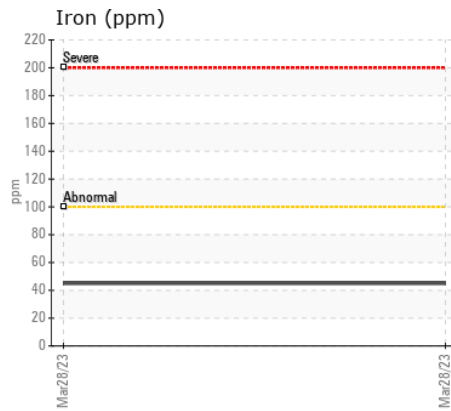
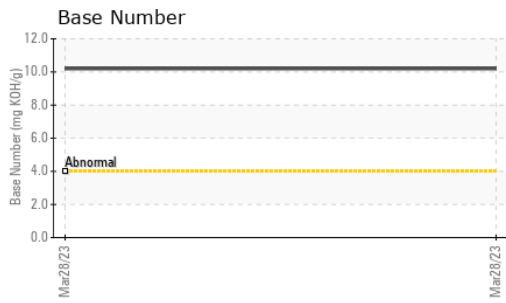
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>16</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	---	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	---	---
Water		WC Method	>0.1	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.3</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.9</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	>0.1	<b>NEG</b>	---	---

### 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	>118	<b>3</b>	---	---
Boron	ppm	ASTM D5185m		<b>33</b>	---	---
Barium	ppm	ASTM D5185m		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>39</b>	---	---
Manganese	ppm	ASTM D5185m		<b>2</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>505</b>	---	---
Calcium	ppm	ASTM D5185m		<b>1768</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>960</b>	---	---
Zinc	ppm	ASTM D5185m		<b>1159</b>	---	---
Sulfur	ppm	ASTM D5185m		<b>3689</b>	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.5</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>10.2</b>	---	---
Visc @ 100°C	cSt	ASTM D445		<b>12.6</b>	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VC527542 **Received** : 06 Apr 2023  
**Lab Number** : 05813203 **Diagnosed** : 12 Apr 2023  
**Unique Number** : 10415995 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

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)

**DUNN COUNTY HIGHWAY DEPARTMENT**  
 ROUTE 2 BOX 71A, 3303 US HWY 12 EAST  
 MENOMONIE, WI  
 US 54751

Contact: DANNY NELSON  
 dnelson@co.dunn.wi.us

T: (715)232-2361  
 F: (715)232-3888