



# OIL ANALYSIS REPORT

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

Area

[716771 HILLSBOROUGH]

Machine Id

VOLVO EW160E 323446

Component

Drop Box

Fluid

VOLVO PREMIUM GEAR OIL 85W-140 GL-5 (--- GAL)

## RECOMMENDATION

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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP449950	---	---
Sample Date		Client Info		23 May 2024	---	---
Machine Age	hrs	Client Info		8720	---	---
Oil Age	hrs	Client Info		2000	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		Not Changd	---	---
Sample Status				SEVERE	---	---

## WEAR

The copper level is severe.

Iron	ppm	ASTM D5185m	>400	38	---	---
Chromium	ppm	ASTM D5185m	>4	<1	---	---
Nickel	ppm	ASTM D5185m	>3	0	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>15	4	---	---
Lead	ppm	ASTM D5185m	>20	2	---	---
Copper	ppm	ASTM D5185m	>50	▲ 282	---	---
Tin	ppm	ASTM D5185m	>3	<1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

## CONTAMINATION

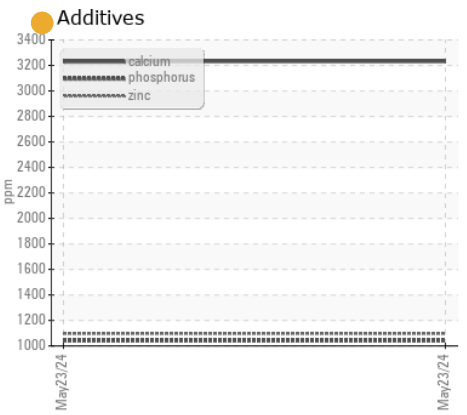
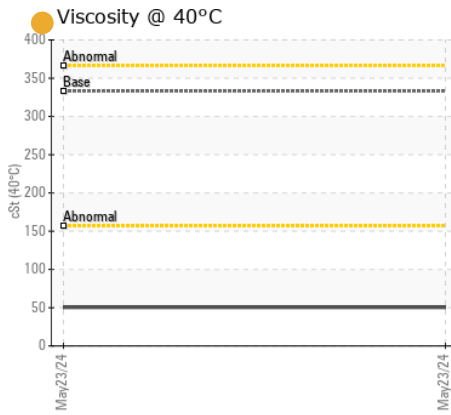
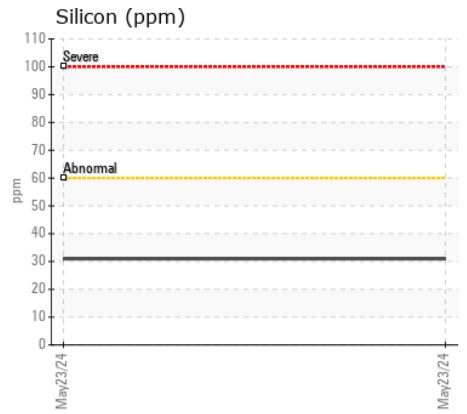
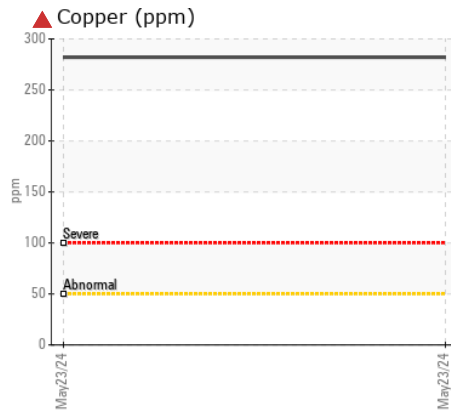
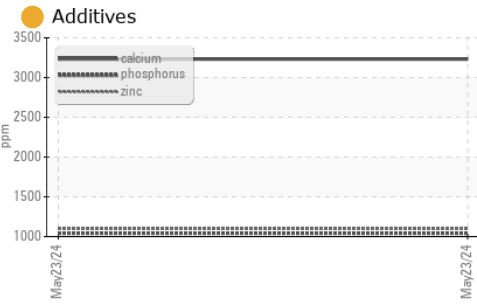
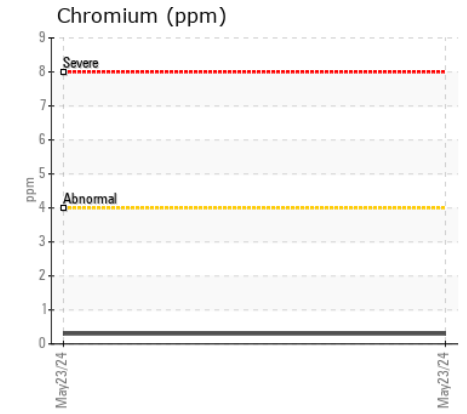
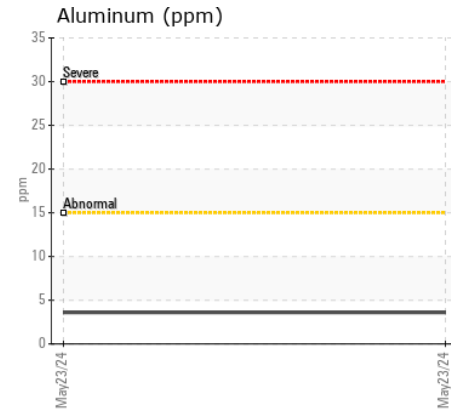
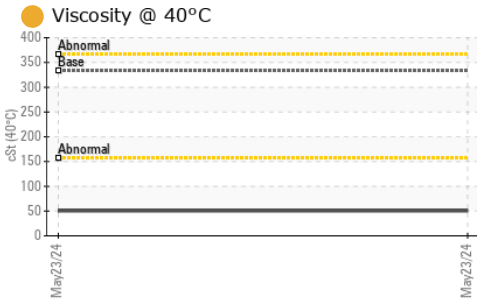
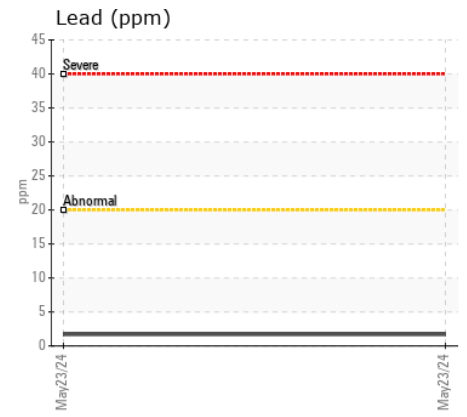
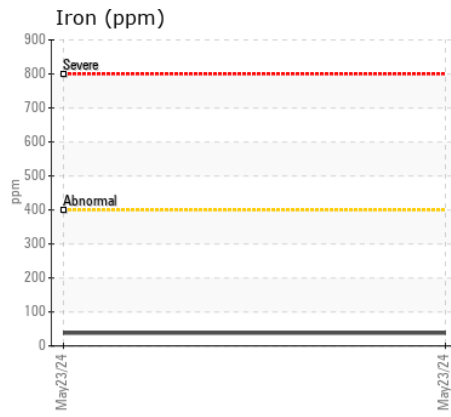
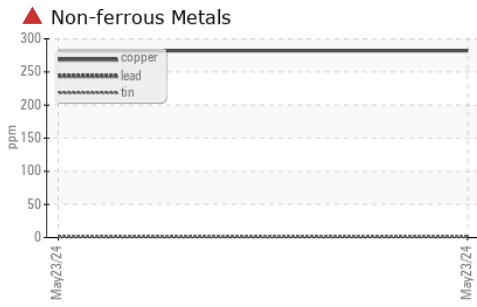
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>60	31	---	---
Potassium	ppm	ASTM D5185m	>20	3	---	---
Water		WC Method	>0.2	NEG	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---

## FLUID CONDITION

The oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		22	---	---
Boron	ppm	ASTM D5185m	111	9	---	---
Barium	ppm	ASTM D5185m	0.0	<1	---	---
Molybdenum	ppm	ASTM D5185m	0.9	0	---	---
Manganese	ppm	ASTM D5185m	0.0	19	---	---
Magnesium	ppm	ASTM D5185m	39	7	---	---
Calcium	ppm	ASTM D5185m	93	● 3232	---	---
Phosphorus	ppm	ASTM D5185m	920	● 1042	---	---
Zinc	ppm	ASTM D5185m	104	● 1097	---	---
Sulfur	ppm	ASTM D5185m	20179	● 12064	---	---
Visc @ 40°C	cSt	ASTM D445	333	● 50.5	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP449950  
**Lab Number** : 06215086  
**Unique Number** : 11087950  
**Test Package** : MOB 1

**Received** : 19 Jun 2024  
**Tested** : 20 Jun 2024  
**Diagnosed** : 21 Jun 2024 - Sean Felton

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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)