



# VOLVO

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Area  
**[IMPORT AUTO]**  
 Machine Id  
**VOLVO EC220E 310953**  
 Component  
**Hydraulic System**  
 Fluid  
**VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)**

### RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP437846	VCP334700	---
Sample Date		Client Info		26 Feb 2024	20 Jul 2021	---
Machine Age	hrs	Client Info		3107	1253	---
Oil Age	hrs	Client Info		0	1253	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Not Chngd	Not Chngd	---
Filter Changed		Client Info		Not Chngd	Changed	---
Sample Status				ABNORMAL	ABNORMAL	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>25	3	2	---
Chromium	ppm	ASTM D5185m	>10	0	<1	---
Nickel	ppm	ASTM D5185m	>10	0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>20	<1	<1	---
Lead	ppm	ASTM D5185m	>20	0	<1	---
Copper	ppm	ASTM D5185m	>150	20	33	---
Tin	ppm	ASTM D5185m	>10	0	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

### CONTAMINATION

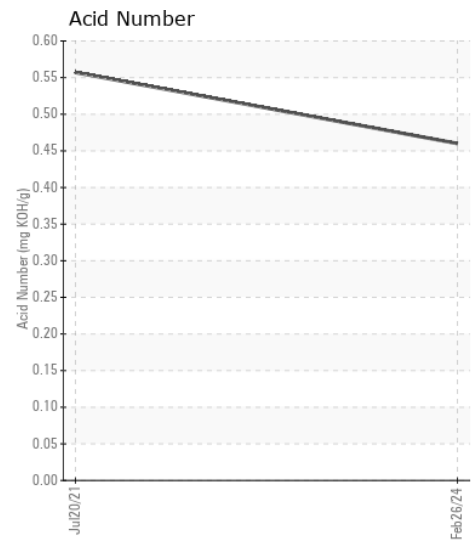
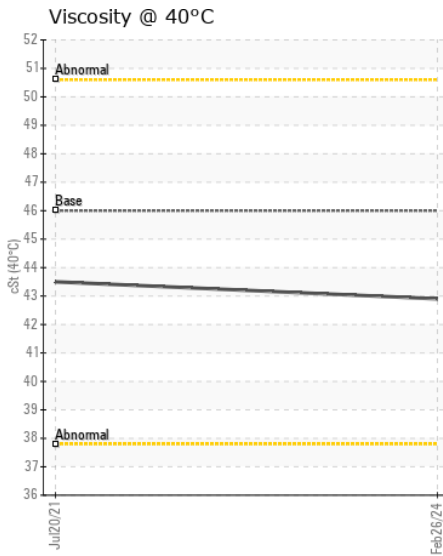
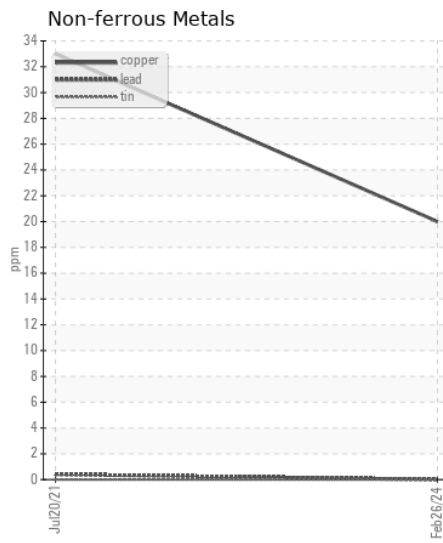
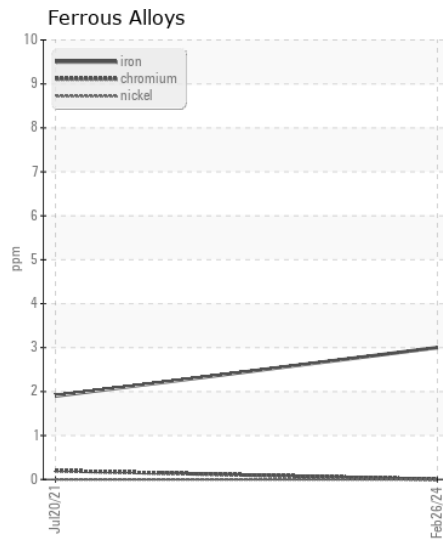
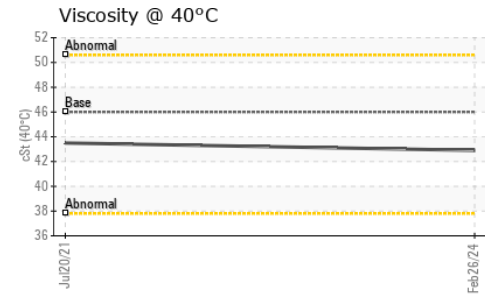
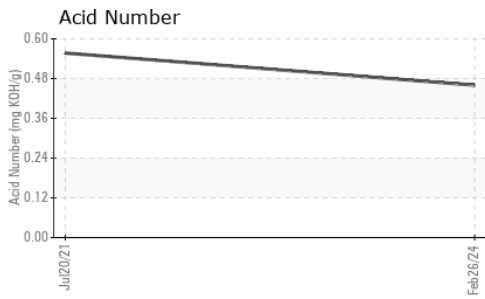
Moderate concentration of visible dirt/debris present in the oil.

Silicon	ppm	ASTM D5185m	>50	2	4	---
Potassium	ppm	ASTM D5185m	>20	0	6	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>40000	---	▲ 130249	---
Particles >6µm		ASTM D7647	>10000	---	● 17972	---
Particles >14µm		ASTM D7647	>2500	---	28	---
Particles >21µm		ASTM D7647	>640	---	6	---
Particles >38µm		ASTM D7647	>160	---	0	---
Particles >71µm		ASTM D7647	>40	---	0	---
Oil Cleanliness		ISO 4406 (c)	>22/20/18	---	▲ 24/21/12	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	▲ MODER	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	---

### FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		2	<1	---
Boron	ppm	ASTM D5185m	14	0	4	---
Barium	ppm	ASTM D5185m	0.0	0	0	---
Molybdenum	ppm	ASTM D5185m	0.0	0	0	---
Manganese	ppm	ASTM D5185m	0.0	0	0	---
Magnesium	ppm	ASTM D5185m	2.6	<1	0	---
Calcium	ppm	ASTM D5185m	49	48	60	---
Phosphorus	ppm	ASTM D5185m	354	309	396	---
Zinc	ppm	ASTM D5185m	419	369	456	---
Sulfur	ppm	ASTM D5185m	3719	1088	976	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.46	0.557	---
Visc @ 40°C	cSt	ASTM D445	46	42.9	43.5	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP437846  
**Lab Number** : 06160297  
**Unique Number** : 10995720  
**Test Package** : MOB 2

**Received** : 25 Apr 2024  
**Tested** : 26 Apr 2024  
**Diagnosed** : 26 Apr 2024 - Don Baldrige

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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)