



# VOLVO

## OIL ANALYSIS REPORT

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



Machine Id  
**VOLVO ECR235E 314041**  
Component  
**Hydraulic System**  
Fluid  
**VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP0007800</b>	VCP332972	---
Sample Date		Client Info		<b>15 Apr 2024</b>	02 May 2022	---
Machine Age	hrs	Client Info		<b>1037</b>	1037	---
Oil Age	hrs	Client Info		<b>1037</b>	500	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>N/A</b>	Not Changd	---
Filter Changed		Client Info		<b>N/A</b>	Not Changd	---
Sample Status				<b>NORMAL</b>	NORMAL	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>25	<b>2</b>	4	---
Chromium	ppm	ASTM D5185m	>10	<b>1</b>	2	---
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m		<b>0</b>	0	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>0</b>	<1	---
Lead	ppm	ASTM D5185m	>20	<b>0</b>	<1	---
Copper	ppm	ASTM D5185m	>150	<b>10</b>	21	---
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>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

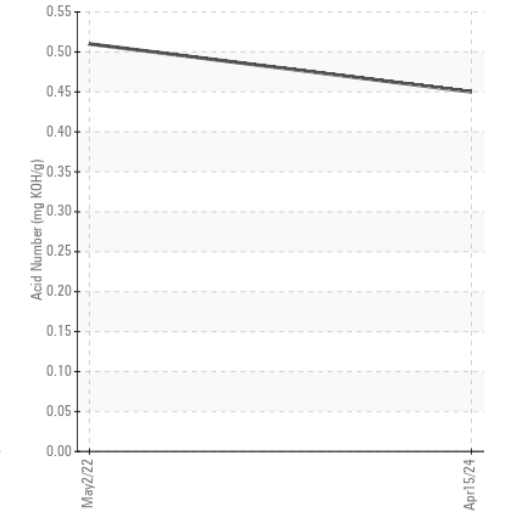
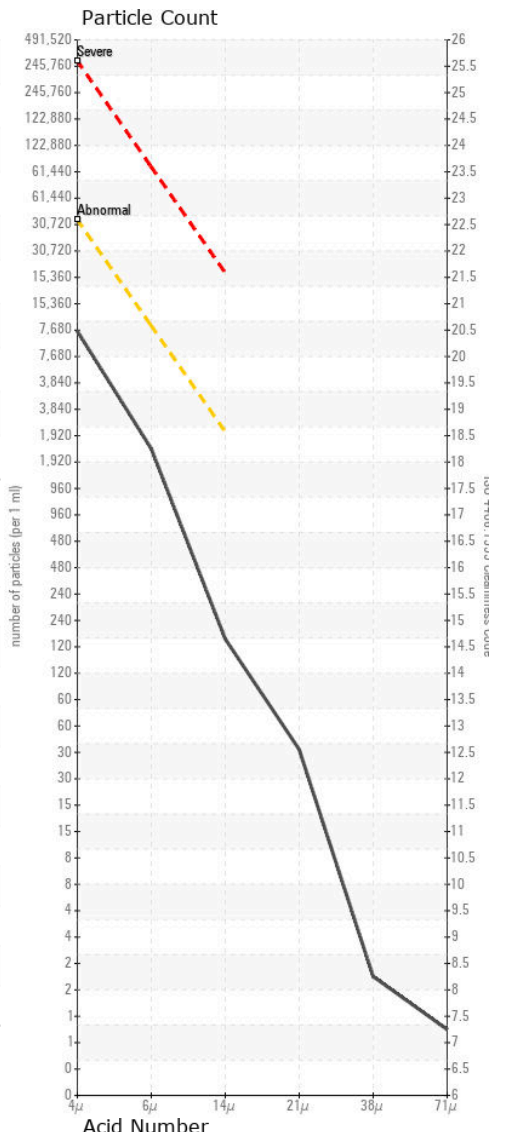
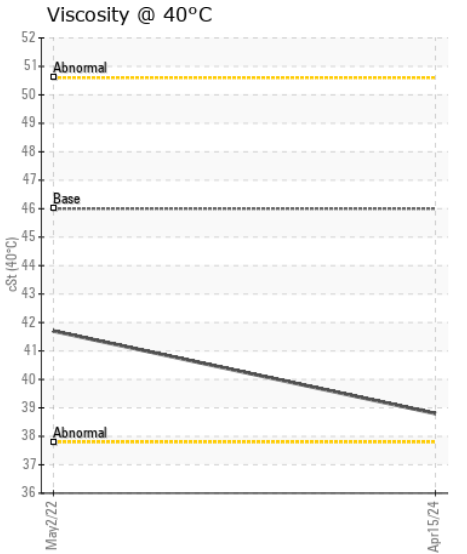
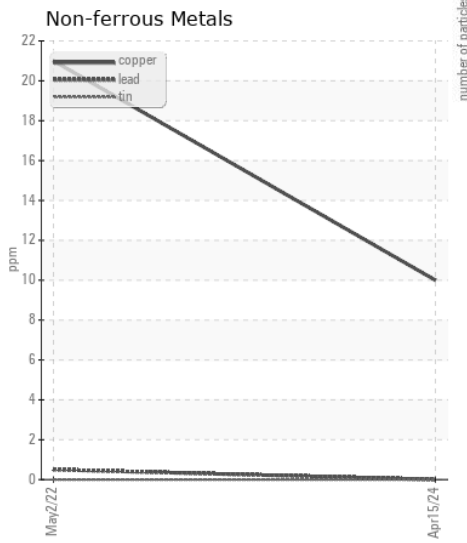
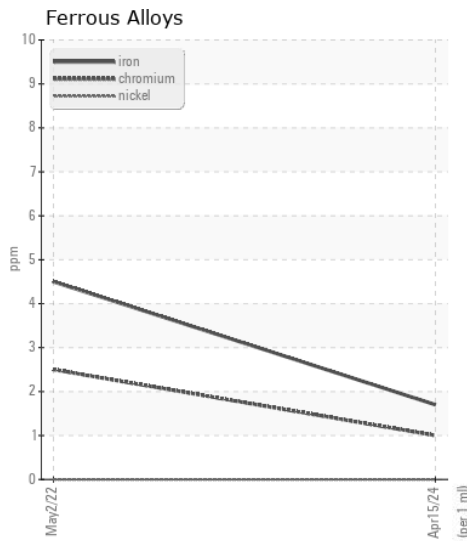
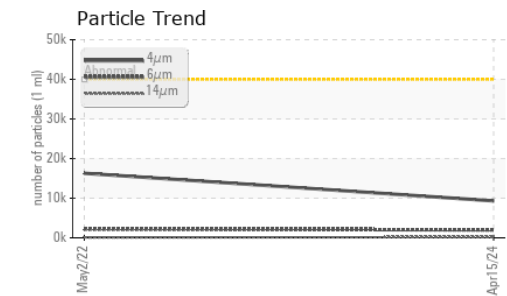
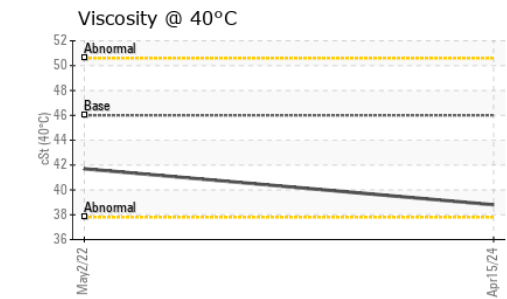
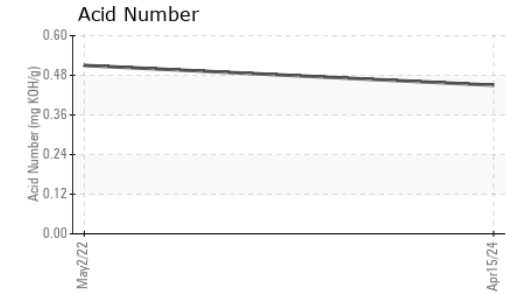
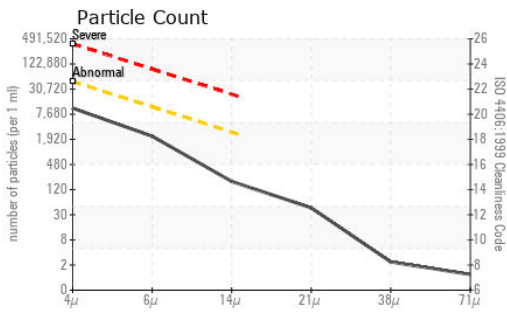
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>50	<b>6</b>	4	---
Potassium	ppm	ASTM D5185m	>20	<b>9</b>	1	---
Water		WC Method	>0.1	<b>NEG</b>	NEG	---
Particles >4µm		ASTM D7647	>40000	<b>9322</b>	16299	---
Particles >6µm		ASTM D7647	>10000	<b>2001</b>	2202	---
Particles >14µm		ASTM D7647	>2500	<b>166</b>	95	---
Particles >21µm		ASTM D7647	>640	<b>39</b>	19	---
Particles >38µm		ASTM D7647	>160	<b>2</b>	1	---
Particles >71µm		ASTM D7647	>40	<b>1</b>	0	---
Oil Cleanliness		ISO 4406 (c)	>22/20/18	<b>20/18/15</b>	21/18/14	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	---
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	>0.1	<b>NEG</b>	NEG	---

### FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>3</b>	0	---
Boron	ppm	ASTM D5185m	14	<b>0</b>	5	---
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	4	---
Manganese	ppm	ASTM D5185m	0.0	<b>0</b>	0	---
Magnesium	ppm	ASTM D5185m	2.6	<b>2</b>	13	---
Calcium	ppm	ASTM D5185m	49	<b>148</b>	267	---
Phosphorus	ppm	ASTM D5185m	354	<b>298</b>	399	---
Zinc	ppm	ASTM D5185m	419	<b>346</b>	498	---
Sulfur	ppm	ASTM D5185m	3719	<b>1838</b>	1572	---
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.45</b>	0.51	---
Visc @ 40°C	cSt	ASTM D445	46	<b>38.8</b>	41.7	---



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP0007800  
**Lab Number** : 06151920  
**Unique Number** : 10981998  
**Test Package** : MOBCE

**Received** : 17 Apr 2024  
**Tested** : 18 Apr 2024  
**Diagnosed** : 18 Apr 2024 - Wes Davis

**ALTA EQUIPMENT COMPANY**  
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 JACKSONVILLE, FL  
 US 32256  
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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)