



# VOLVO

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area  
**[A12796]**  
 Machine Id  
**VOLVO L110H 632555**  
 Component  
**Hydraulic System**  
 Fluid  
**MOBIL HYDRAULIC OIL AW 46 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP445229	VCP407250	VCP441835
Sample Date		Client Info		04 Jun 2024	06 Mar 2024	03 Oct 2023
Machine Age	hrs	Client Info		4100	3345	1760
Oil Age	hrs	Client Info		4100	0	1760
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	ABNORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	6	6	5
Chromium	ppm	ASTM D5185m	>20	2	2	<1
Nickel	ppm	ASTM D5185m	>10	<1	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	0	0
Lead	ppm	ASTM D5185m	>20	<1	<1	0
Copper	ppm	ASTM D5185m	>150	2	2	2
Tin	ppm	ASTM D5185m	>20	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

### CONTAMINATION

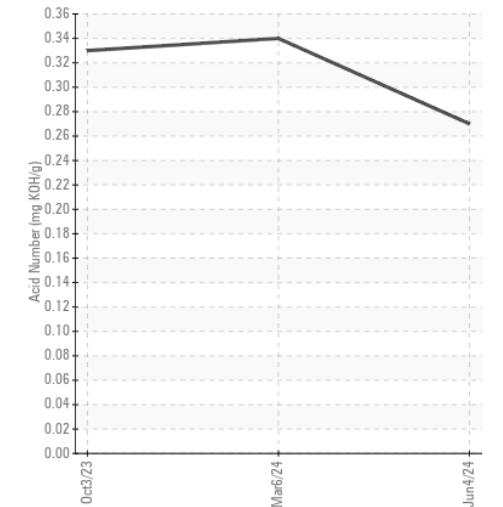
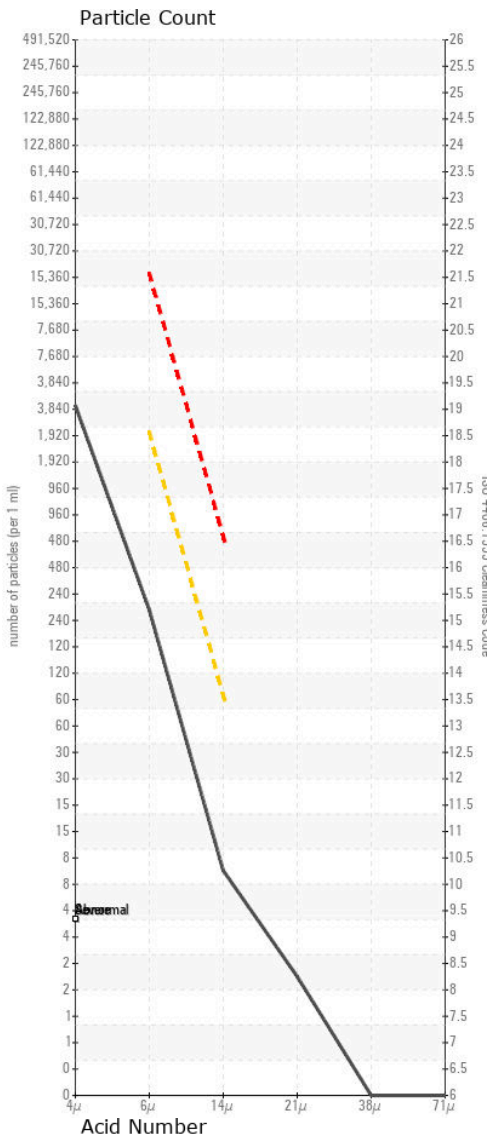
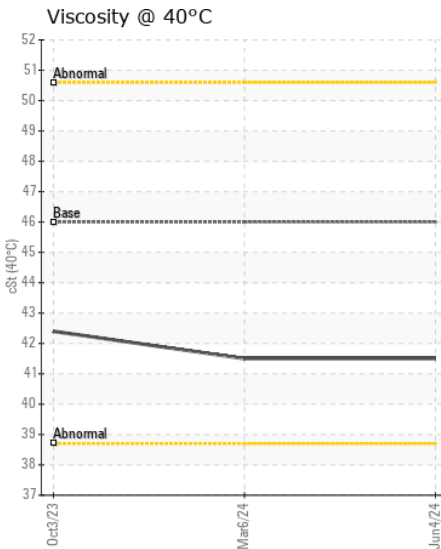
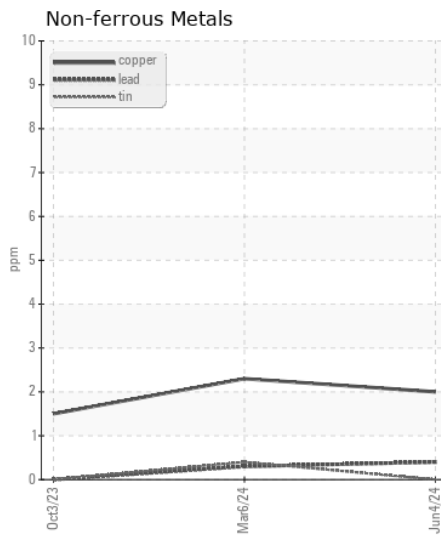
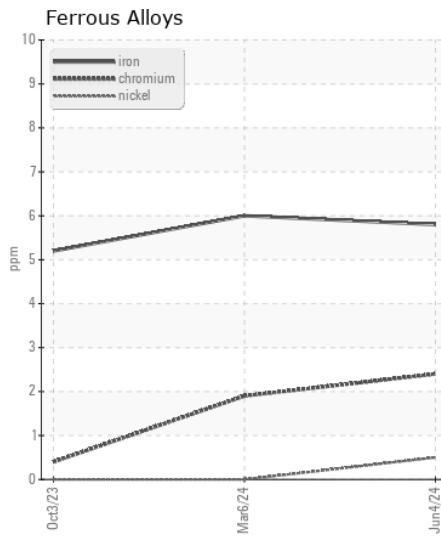
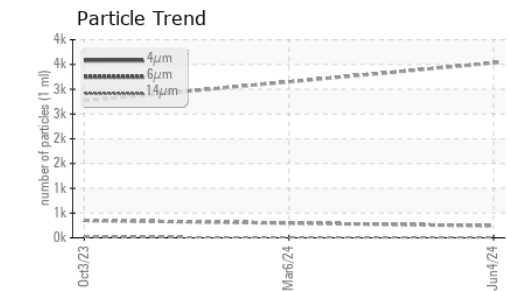
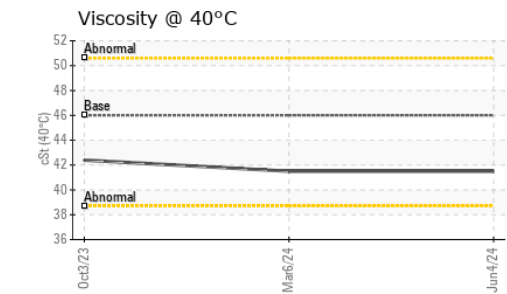
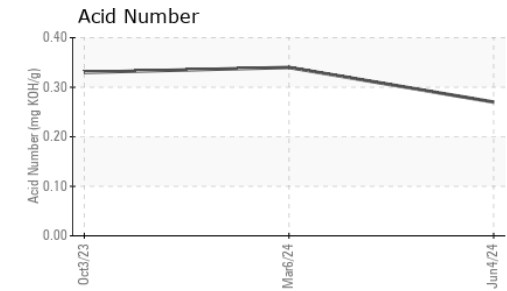
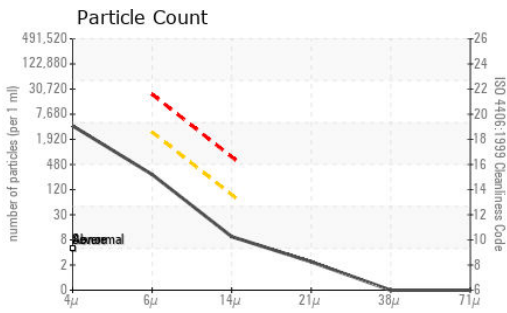
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>20	1	1	1
Potassium	ppm	ASTM D5185m	>20	4	<1	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647		3532	---	2768
Particles >6µm		ASTM D7647	>2500	243	---	350
Particles >14µm		ASTM D7647	>80	8	---	13
Particles >21µm		ASTM D7647	>20	2	---	2
Particles >38µm		ASTM D7647	>4	0	---	0
Particles >71µm		ASTM D7647	>3	0	---	0
Oil Cleanliness		ISO 4406 (c)	>-/18/13	19/15/10	---	19/16/11
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	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		4	2	<1
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	1	1
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		7	5	4
Calcium	ppm	ASTM D5185m		68	62	63
Phosphorus	ppm	ASTM D5185m		357	332	345
Zinc	ppm	ASTM D5185m		461	423	442
Sulfur	ppm	ASTM D5185m		2415	2265	2020
Acid Number (AN)	mg KOH/g	ASTM D8045		0.27	0.34	0.33
Visc @ 40°C	cSt	ASTM D445	46	41.5	41.5	42.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP445229  
**Lab Number** : 06215738  
**Unique Number** : 11088602  
**Test Package** : MOB 2

**Received** : 20 Jun 2024  
**Tested** : 21 Jun 2024  
**Diagnosed** : 21 Jun 2024 - Wes Davis

**HMR ASSOCIATES**  
 PO BOX 485  
 TOUGHKENAMON, PA  
 US 19374  
 Contact: SERVICE MANAGER

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)

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 F: (610)268-2225