



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
VOLVO EC460CL 110437
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		ML0001858	ML0000678	VCP181444
Sample Date		Client Info		22 May 2024	08 Feb 2024	15 Dec 2015
Machine Age	hrs	Client Info		6749	0	4194
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Not Changd	Changed
Filter Changed		Client Info		N/A	Not Changd	N/A
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>25	4	2	19
Chromium	ppm	ASTM D5185m	>10	0	0	1
Nickel	ppm	ASTM D5185m	>10	0	0	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>20	0	<1	3
Lead	ppm	ASTM D5185m	>20	0	0	0
Copper	ppm	ASTM D5185m	>150	8	9	9
Tin	ppm	ASTM D5185m	>10	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

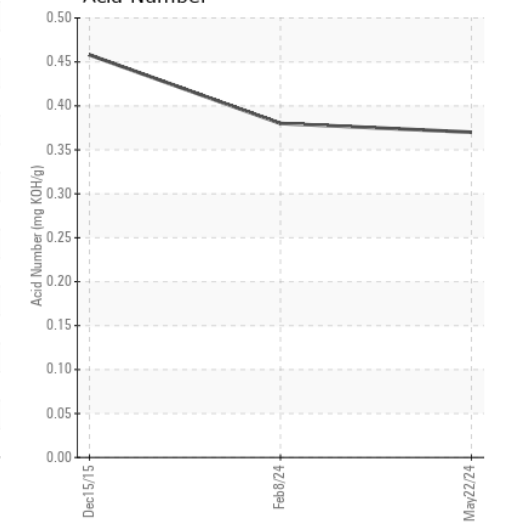
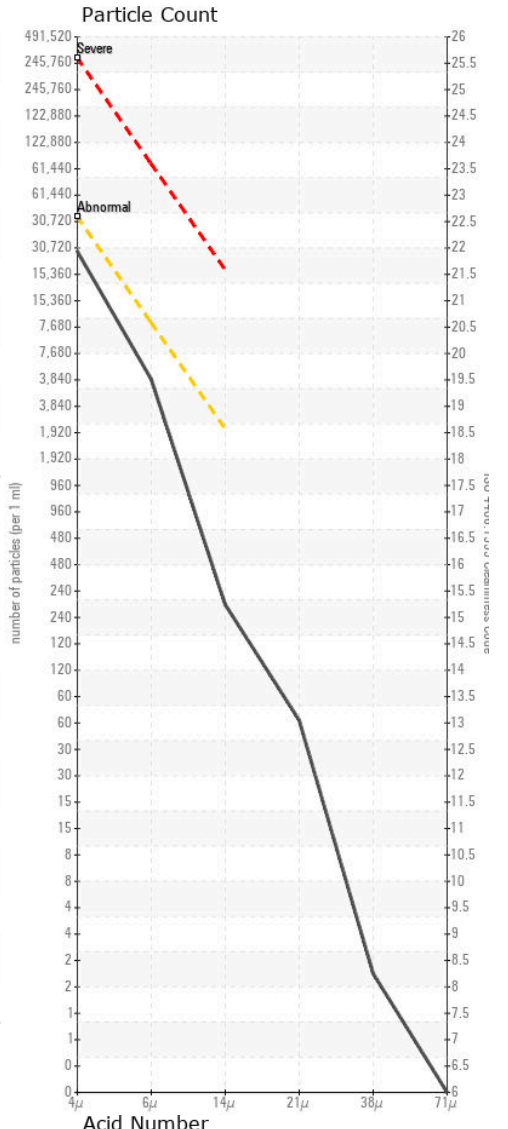
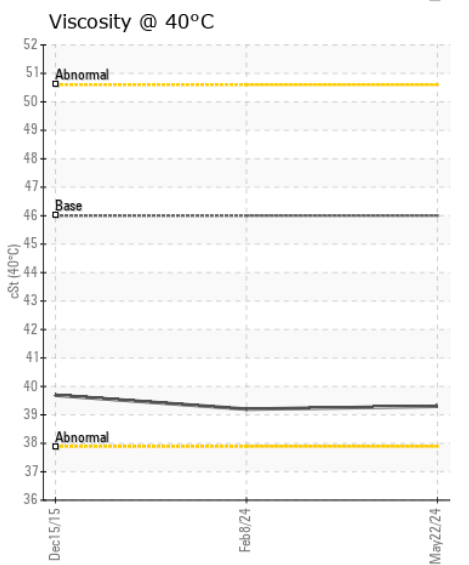
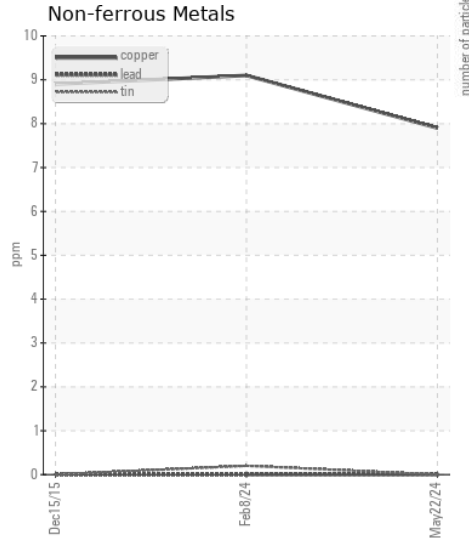
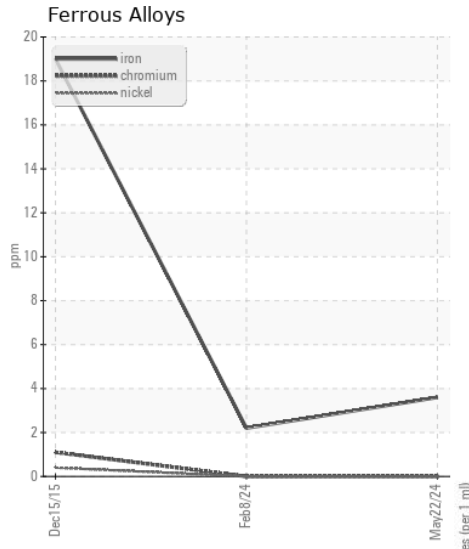
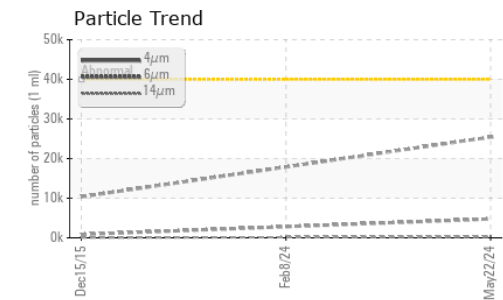
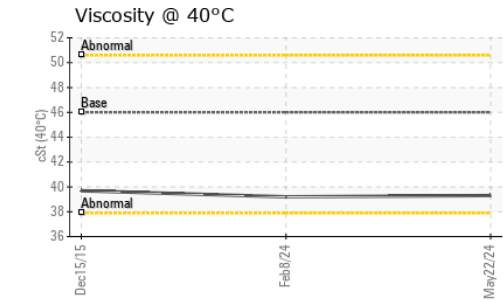
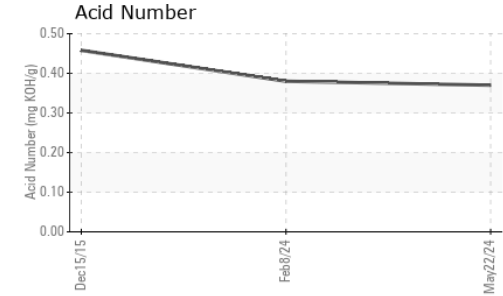
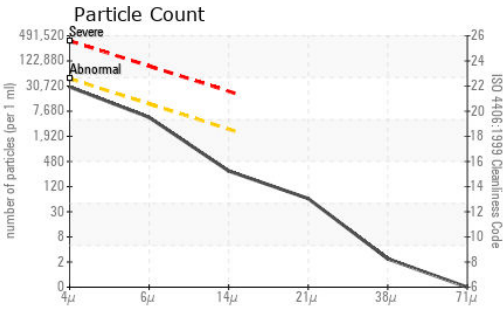
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>50	1	1	16
Potassium	ppm	ASTM D5185m	>20	0	0	10
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>40000	25430	---	10364
Particles >6µm		ASTM D7647	>10000	4762	---	861
Particles >14µm		ASTM D7647	>2500	250	---	49
Particles >21µm		ASTM D7647	>640	55	---	19
Particles >38µm		ASTM D7647	>160	2	---	2
Particles >71µm		ASTM D7647	>40	0	---	0
Oil Cleanliness		ISO 4406 (c)	>22/20/18	22/19/15	---	21/17/13
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		1	<1	4
Boron	ppm	ASTM D5185m	14	0	2	5
Barium	ppm	ASTM D5185m	0.0	0	<1	0
Molybdenum	ppm	ASTM D5185m	0.0	1	<1	3
Manganese	ppm	ASTM D5185m	0.0	0	<1	<1
Magnesium	ppm	ASTM D5185m	2.6	17	22	16
Calcium	ppm	ASTM D5185m	49	100	108	237
Phosphorus	ppm	ASTM D5185m	354	322	331	306
Zinc	ppm	ASTM D5185m	419	409	415	349
Sulfur	ppm	ASTM D5185m	3719	2362	2032	2860
Acid Number (AN)	mg KOH/g	ASTM D8045		0.37	0.38	0.458
Visc @ 40°C	cSt	ASTM D445	46	39.3	39.2	39.69



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ML0001858
Lab Number : 06189718
Unique Number : 11046470
Test Package : CONST

Received : 23 May 2024
Tested : 25 May 2024
Diagnosed : 30 May 2024 - Jonathan Hester

MCCLEUNG-LOGAN EQUIPMENT CO - RICHMOND
 1345 MOUNTAIN ROAD
 GLEN ALLEN, VA
 US 23060
 Contact: KYLE RATLIFFE
 KRATLIFFE@MCCLEUNG-LOGAN.COM

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)

F: (804)266-1611