



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id
VOLVO L110H 631298
Component
Hydraulic System
Fluid
VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)

RECOMMENDATION

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP444101	VCP393729	VCP398712
Sample Date		Client Info		21 Feb 2024	18 Jul 2023	16 Dec 2022
Machine Age	hrs	Client Info		9530	8405	7287
Oil Age	hrs	Client Info		0	4000	3000
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	Not Changd
Filter Changed		Client Info		N/A	Changed	Not Changd
Sample Status				ABNORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	14	19	16
Chromium	ppm	ASTM D5185m	>20	3	5	4
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	3	2
Lead	ppm	ASTM D5185m	>20	<1	2	2
Copper	ppm	ASTM D5185m	>150	4	6	6
Tin	ppm	ASTM D5185m	>20	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

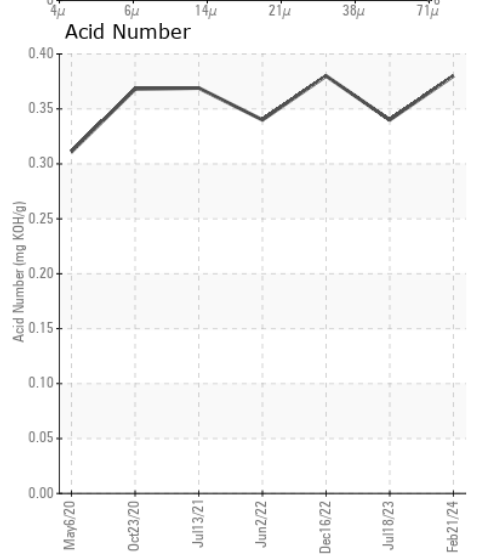
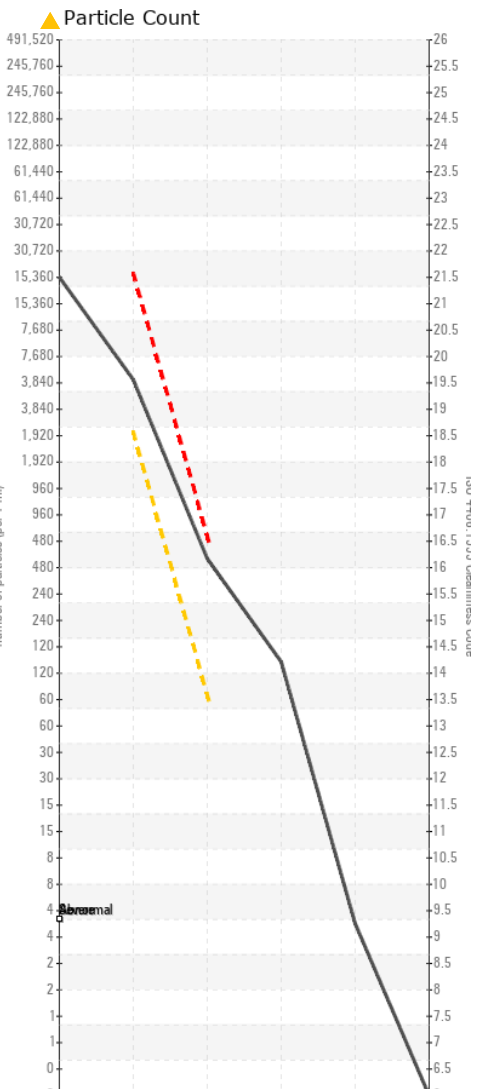
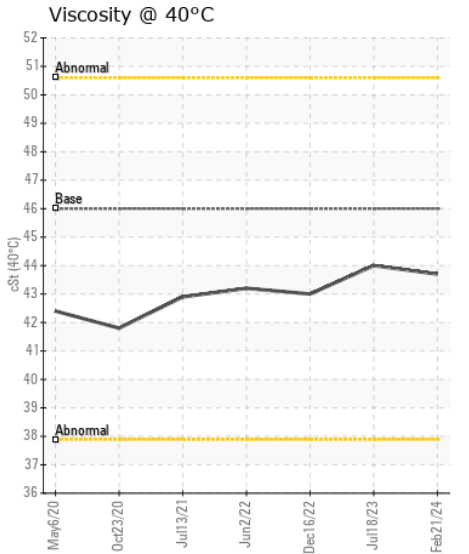
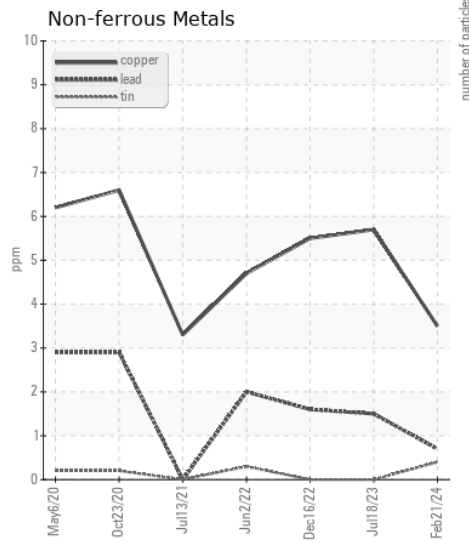
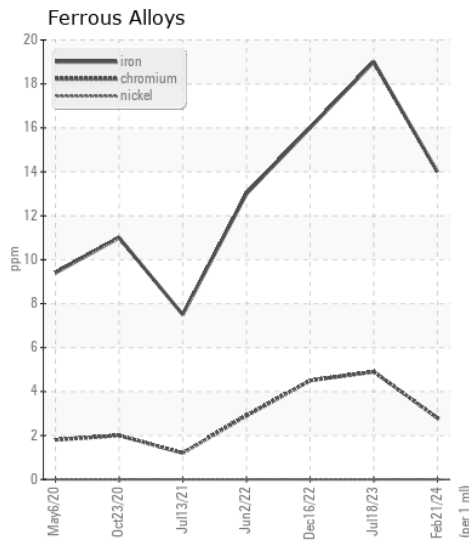
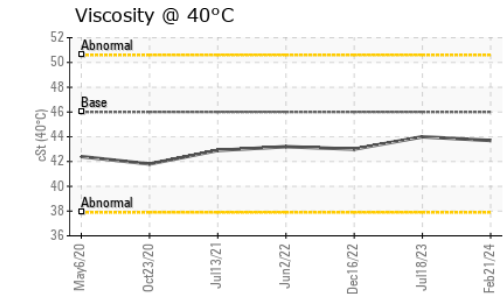
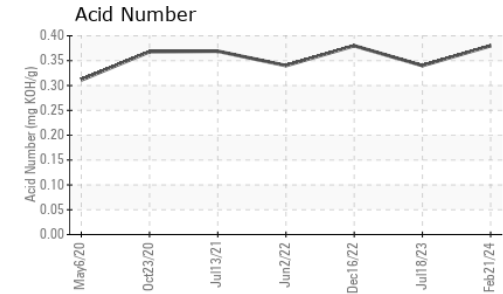
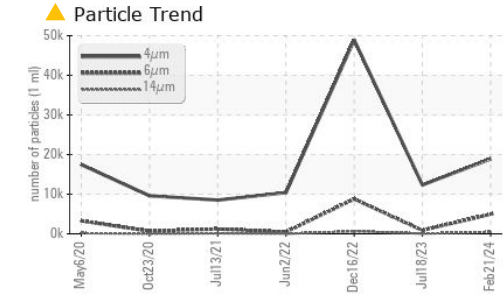
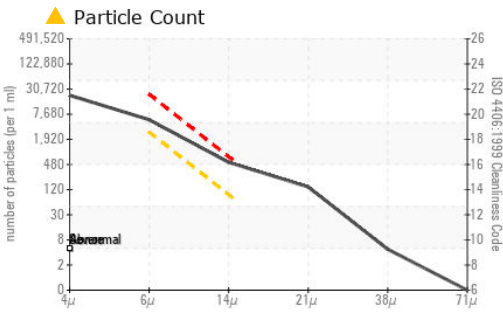
There is a moderate amount of particulates (2 to 100 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	3	4	6
Potassium	ppm	ASTM D5185m	>20	0	0	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647		18890	12333	48952
Particles >6µm		ASTM D7647	>2500	4943	869	8788
Particles >14µm		ASTM D7647	>80	475	43	631
Particles >21µm		ASTM D7647	>20	123	10	195
Particles >38µm		ASTM D7647	>4	4	0	21
Particles >71µm		ASTM D7647	>3	0	0	1
Oil Cleanliness		ISO 4406 (c)	>-/18/13	21/19/16	21/17/13	23/20/16
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	VLITE
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 oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sodium	ppm	ASTM D5185m		1	3	2
Boron	ppm	ASTM D5185m	14	1	0	0
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.0	<1	2	2
Manganese	ppm	ASTM D5185m	0.0	0	<1	<1
Magnesium	ppm	ASTM D5185m	2.6	2	4	4
Calcium	ppm	ASTM D5185m	49	92	83	89
Phosphorus	ppm	ASTM D5185m	354	338	345	354
Zinc	ppm	ASTM D5185m	419	444	427	461
Sulfur	ppm	ASTM D5185m	3719	2540	3379	3838
Acid Number (AN)	mg KOH/g	ASTM D8045		0.38	0.34	0.38
Visc @ 40°C	cSt	ASTM D445	46	43.7	44.0	43.0



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP444101
Lab Number : 06102423
Unique Number : 10900653
Test Package : MOB 2

RIPA AND ASSOCIATES
 10149 FISHER AVENUE
 TAMPA, FL
 US 33619
 Contact: PM Services
 PMServices@ripaconstruction.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)