



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL



Machine Id
VOLVO L110H 631231
Component
Hydraulic System
Fluid
VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)

RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.

WEAR

All component wear rates are normal.

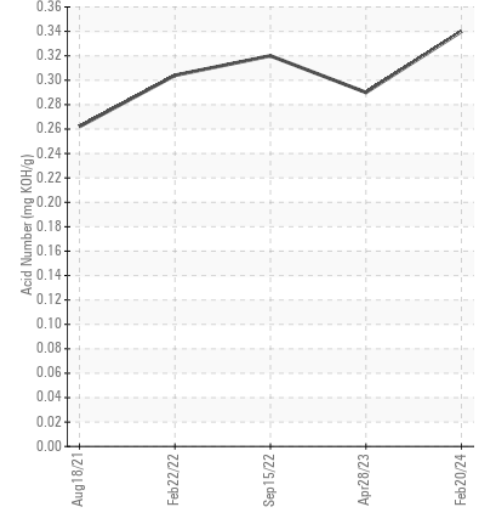
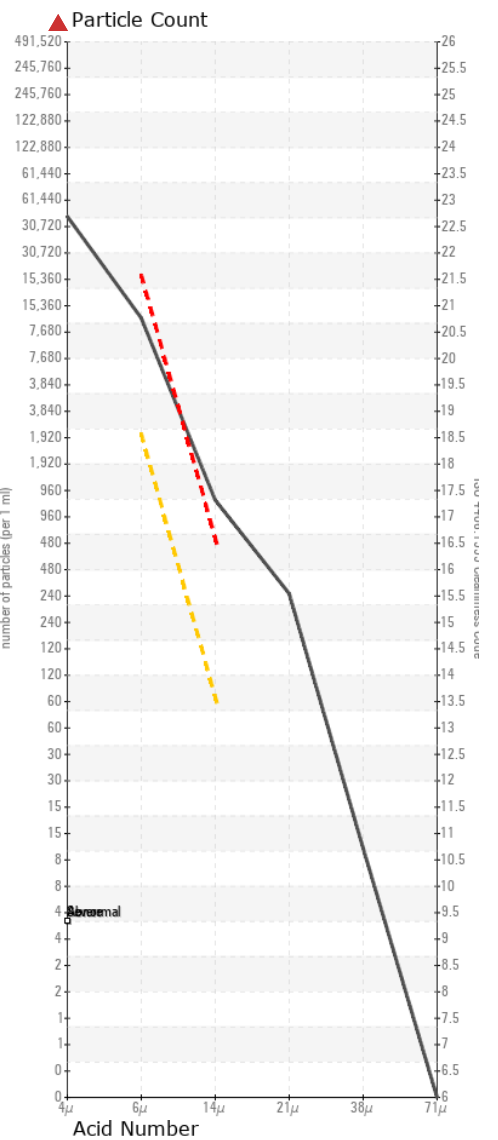
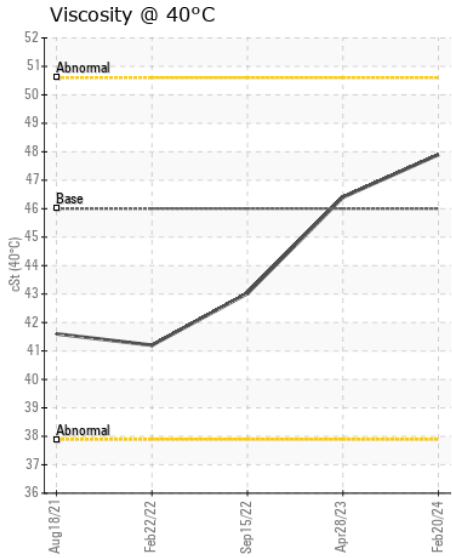
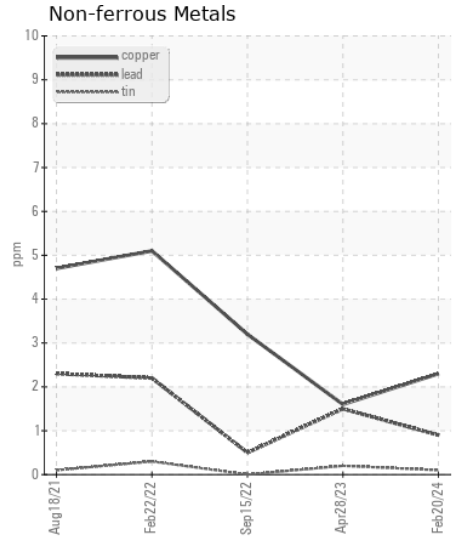
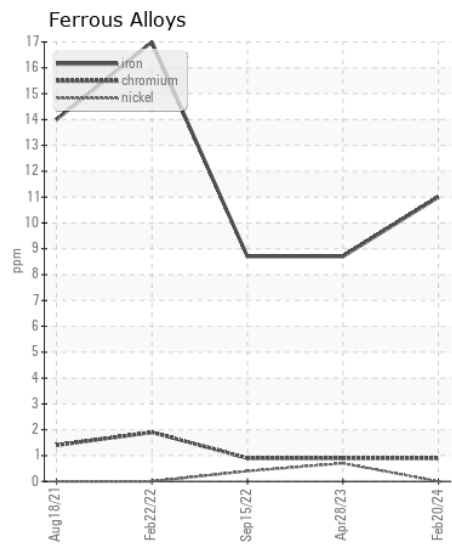
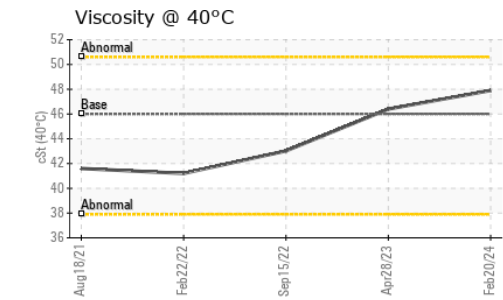
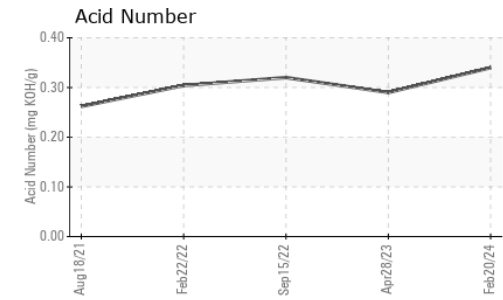
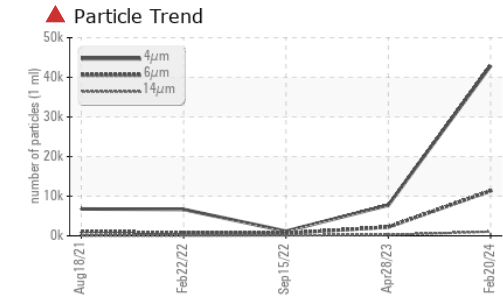
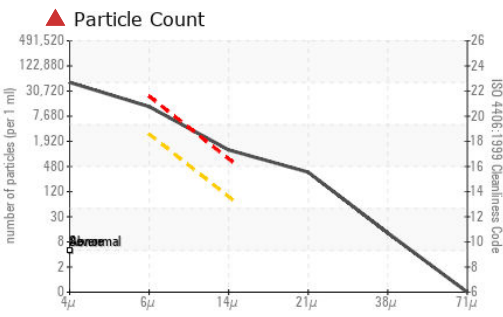
CONTAMINATION

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

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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP441671	VCP393515	VCP385370
Sample Date		Client Info		20 Feb 2024	28 Apr 2023	15 Sep 2022
Machine Age	hrs	Client Info		12527	10851	9792
Oil Age	hrs	Client Info		0	2800	1700
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Not Changd	Not Changd
Filter Changed		Client Info		N/A	Changed	Not Changd
Sample Status				SEVERE	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>50	11	9	9
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	<1	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	1	2	3
Lead	ppm	ASTM D5185m	>20	<1	2	<1
Copper	ppm	ASTM D5185m	>150	2	2	3
Tin	ppm	ASTM D5185m	>20	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>20	5	2	5
Potassium	ppm	ASTM D5185m	>20	<1	2	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647		42904	7744	1175
Particles >6µm		ASTM D7647	>2500	▲ 11343	2212	640
Particles >14µm		ASTM D7647	>80	▲ 1048	▲ 219	● 109
Particles >21µm		ASTM D7647	>20	▲ 308	▲ 50	● 37
Particles >38µm		ASTM D7647	>4	▲ 11	3	● 6
Particles >71µm		ASTM D7647	>3	0	0	1
Oil Cleanliness		ISO 4406 (c)	>-/18/13	▲ 23/21/17	▲ 20/18/15	● 17/16/14
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	LIGHT
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	0.2%
Sodium	ppm	ASTM D5185m		<1	2	2
Boron	ppm	ASTM D5185m	14	2	0	0
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.0	<1	<1	1
Manganese	ppm	ASTM D5185m	0.0	0	<1	<1
Magnesium	ppm	ASTM D5185m	2.6	3	4	0
Calcium	ppm	ASTM D5185m	49	86	78	61
Phosphorus	ppm	ASTM D5185m	354	350	343	338
Zinc	ppm	ASTM D5185m	419	451	470	433
Sulfur	ppm	ASTM D5185m	3719	2124	2327	2661
Acid Number (AN)	mg KOH/g	ASTM D8045		0.34	0.29	0.32
Visc @ 40°C	cSt	ASTM D445	46	47.9	46.4	43.02



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP441671 **Received** : 27 Feb 2024
Lab Number : 06102424 **Tested** : 29 Feb 2024
Unique Number : 10900654 **Diagnosed** : 29 Feb 2024 - Wes Davis
Test Package : MOB 2

RIPA AND ASSOCIATES
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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)