



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Area
[4883 IAA]
Machine Id
VOLVO L90H 623702
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		VCP438152	VCP397645	VCP375111
Sample Date		Client Info		09 Jan 2024	23 Jan 2023	21 Jul 2022
Machine Age	hrs	Client Info		9535	8975	8523
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	3	4	4
Chromium	ppm	ASTM D5185m	>20	<1	1	1
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	0	0	0
Lead	ppm	ASTM D5185m	>20	0	2	2
Copper	ppm	ASTM D5185m	>150	3	4	3
Tin	ppm	ASTM D5185m	>20	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

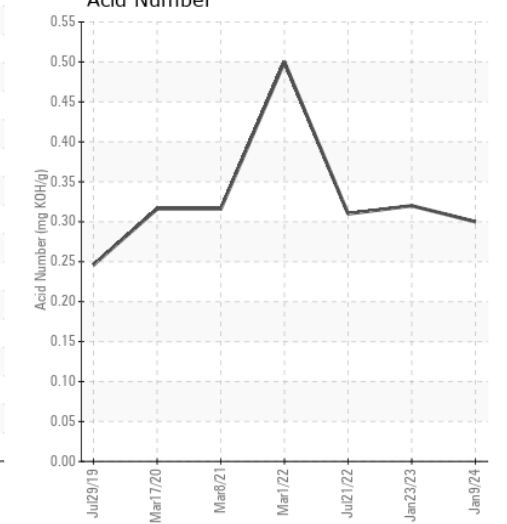
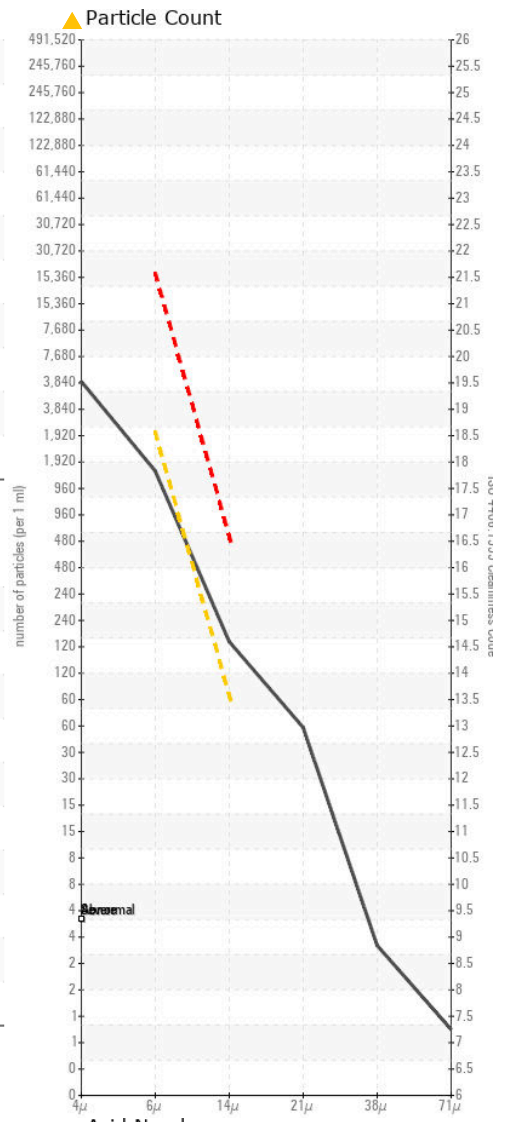
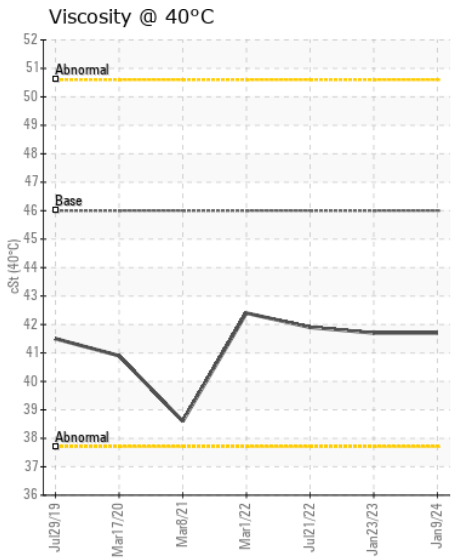
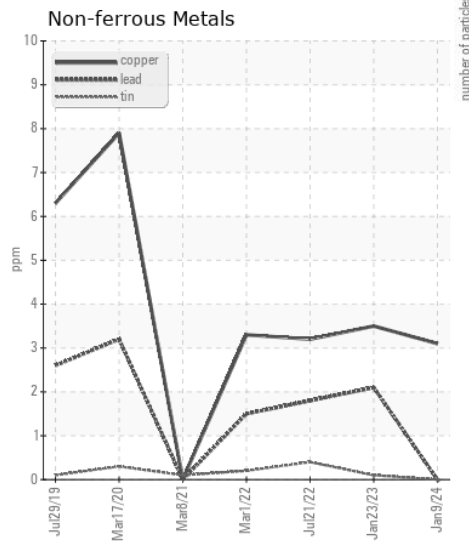
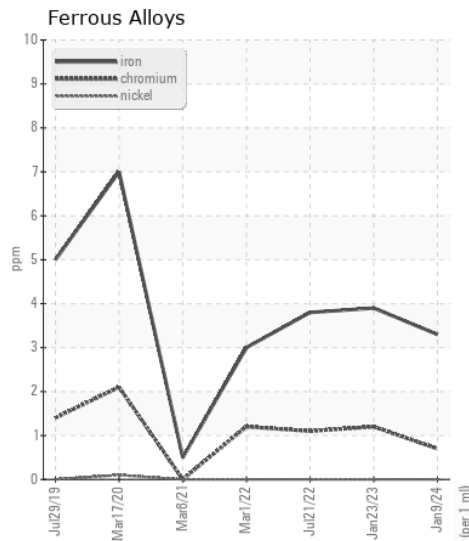
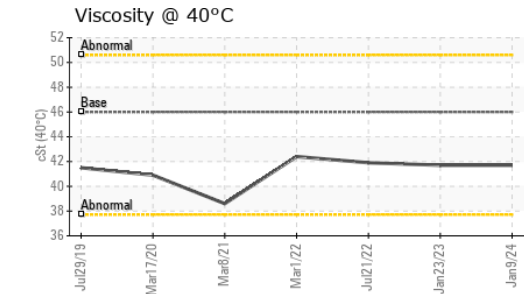
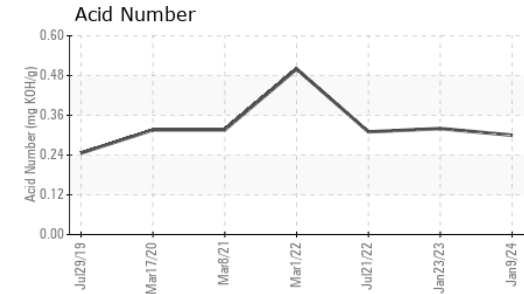
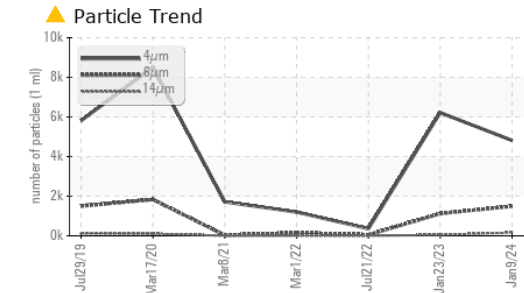
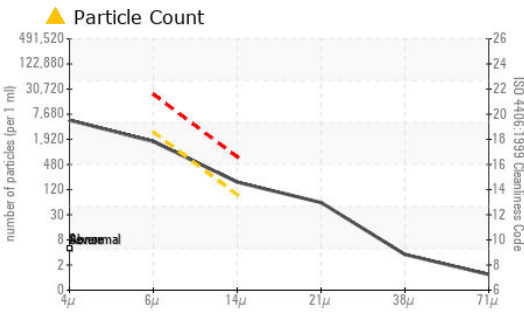
There is a moderate amount of particulates (2 to 100 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	2	3	3
Potassium	ppm	ASTM D5185m	>20	0	1	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647		4816	6217	358
Particles >6µm		ASTM D7647	>2500	1491	1121	53
Particles >14µm		ASTM D7647	>80	▲ 160	43	4
Particles >21µm		ASTM D7647	>20	▲ 52	8	1
Particles >38µm		ASTM D7647	>4	3	0	0
Particles >71µm		ASTM D7647	>3	1	0	0
Oil Cleanliness		ISO 4406 (c)	>-/18/13	▲ 19/18/14	20/17/13	16/13/9
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	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	0.2%	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		2	0	0
Boron	ppm	ASTM D5185m	14	0	0	0
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.0	0	<1	<1
Manganese	ppm	ASTM D5185m	0.0	0	0	0
Magnesium	ppm	ASTM D5185m	2.6	0	3	2
Calcium	ppm	ASTM D5185m	49	64	69	67
Phosphorus	ppm	ASTM D5185m	354	337	321	348
Zinc	ppm	ASTM D5185m	419	422	419	427
Sulfur	ppm	ASTM D5185m	3719	3038	2742	3538
Acid Number (AN)	mg KOH/g	ASTM D8045		0.30	0.32	0.31
Visc @ 40°C	cSt	ASTM D445	46	41.7	41.7	41.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP438152 **Received** : 12 Jan 2024
Lab Number : 06059254 **Diagnosed** : 15 Jan 2024
Unique Number : 10830636 **Diagnostician** : Wes Davis
Test Package : MOB 2

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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)