



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id
VOLVO L90H 5624326
Component
Hydraulic System
Fluid
VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)

RECOMMENDATION

The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP454627	VCP437212	VCP416437
Sample Date		Client Info		09 Jul 2024	21 Mar 2024	08 Sep 2023
Machine Age	hrs	Client Info		9186	0	7531
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Not Changed
Filter Changed		Client Info		Changed	N/A	Not Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

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

CONTAMINATION

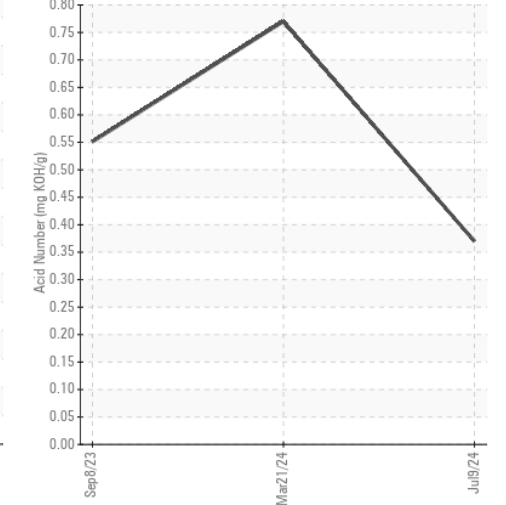
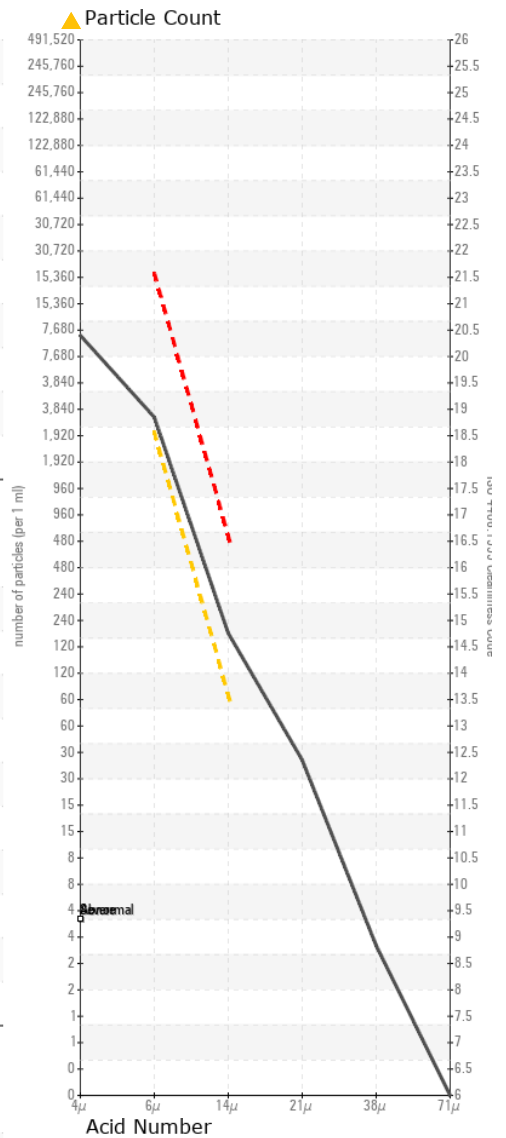
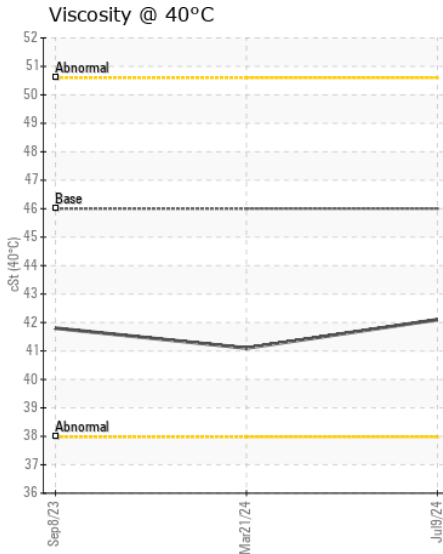
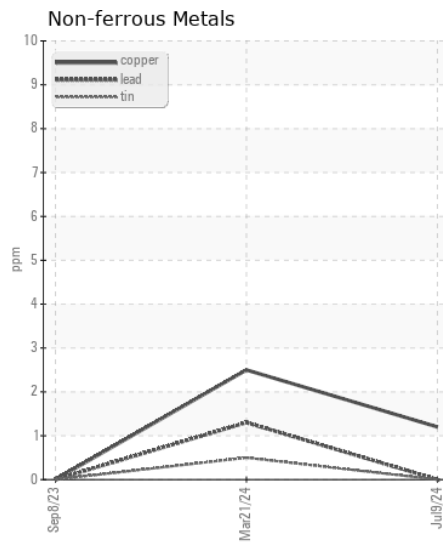
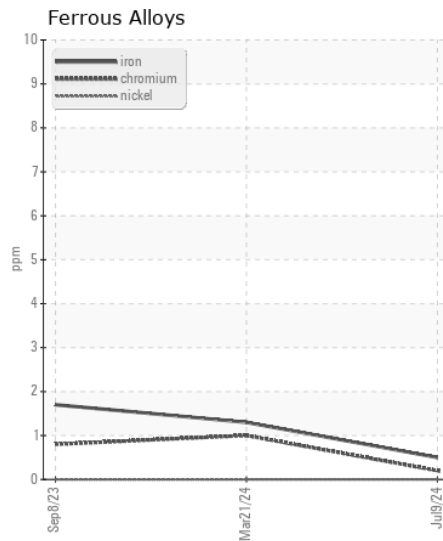
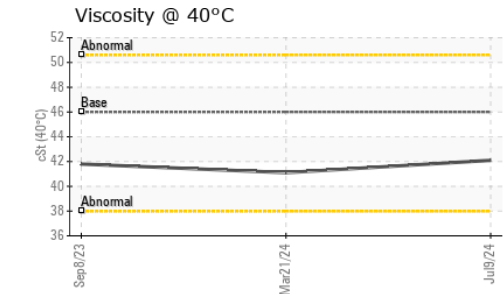
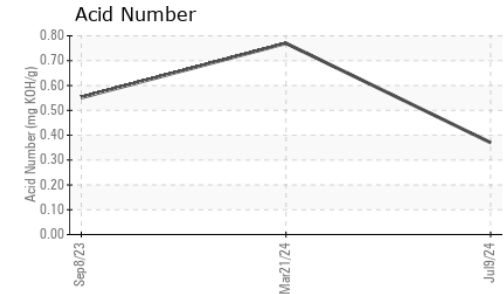
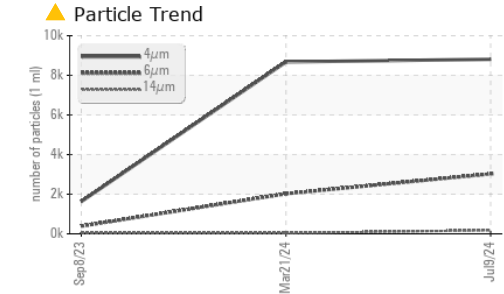
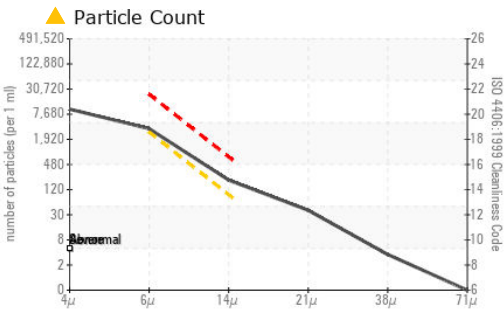
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	2	5	5
Potassium	ppm	ASTM D5185m	>20	0	2	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647		8810	8677	1631
Particles >6µm		ASTM D7647	>2500	3023	2023	388
Particles >14µm		ASTM D7647	>80	179	34	37
Particles >21µm		ASTM D7647	>20	34	6	13
Particles >38µm		ASTM D7647	>4	3	1	1
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>-/18/13	20/19/15	20/18/12	18/16/12
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	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		4	4	3
Boron	ppm	ASTM D5185m	14	2	17	19
Barium	ppm	ASTM D5185m	0.0	0	<1	0
Molybdenum	ppm	ASTM D5185m	0.0	9	27	30
Manganese	ppm	ASTM D5185m	0.0	0	0	0
Magnesium	ppm	ASTM D5185m	2.6	17	58	70
Calcium	ppm	ASTM D5185m	49	474	1149	946
Phosphorus	ppm	ASTM D5185m	354	403	603	460
Zinc	ppm	ASTM D5185m	419	471	707	663
Sulfur	ppm	ASTM D5185m	3719	2366	2841	3144
Acid Number (AN)	mg KOH/g	ASTM D8045		0.37	0.77	0.551
Visc @ 40°C	cSt	ASTM D445	46	42.1	41.1	41.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP454627 **Received** : 12 Jul 2024
Lab Number : 06234793 **Tested** : 15 Jul 2024
Unique Number : 11123627 **Diagnosed** : 15 Jul 2024 - Wes Davis
Test Package : CONST

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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