



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id
VOLVO L110H 05632247
Component
Hydraulic System
Fluid
VALVOLINE ALLFLEET 10W (--- 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		VCP436460	VCP438672	VCP407159
Sample Date		Client Info		09 Apr 2024	12 Feb 2024	16 Oct 2023
Machine Age	hrs	Client Info		6919	0	5396
Oil Age	hrs	Client Info		1523	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	4	3	8
Chromium	ppm	ASTM D5185m	>20	2	2	3
Nickel	ppm	ASTM D5185m	>10	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	0	1	2
Lead	ppm	ASTM D5185m	>20	<1	2	2
Copper	ppm	ASTM D5185m	>150	4	4	3
Tin	ppm	ASTM D5185m	>20	<1	<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

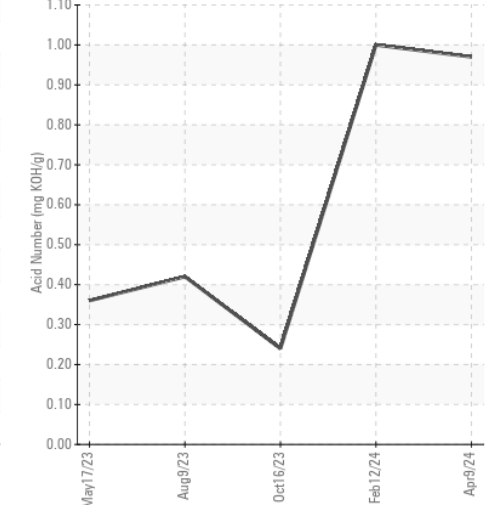
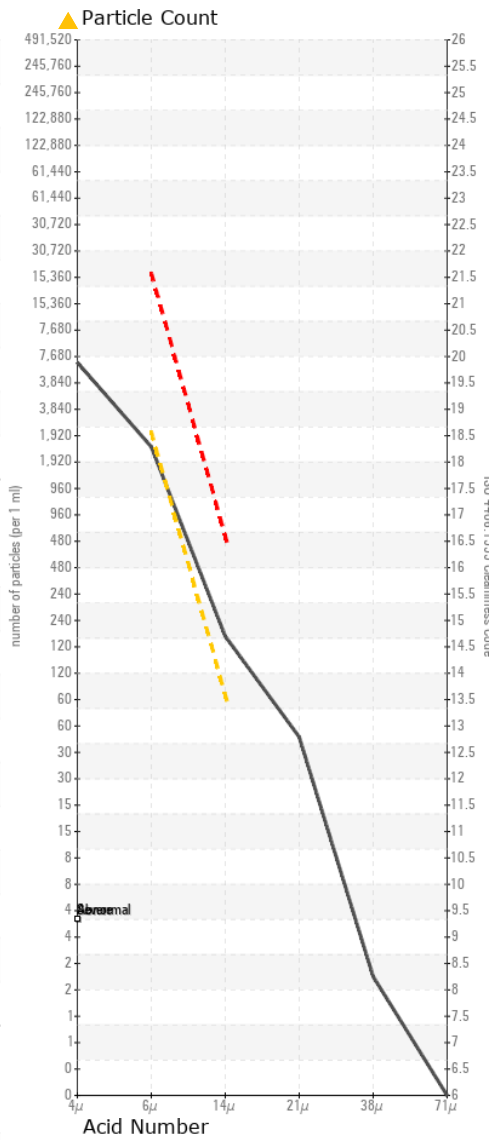
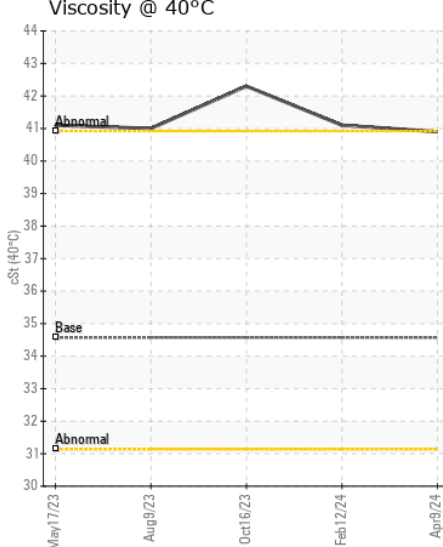
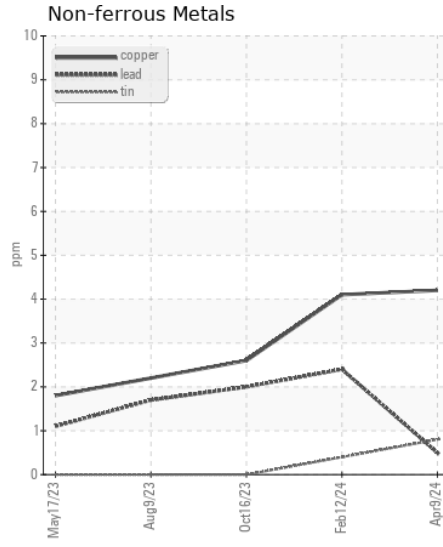
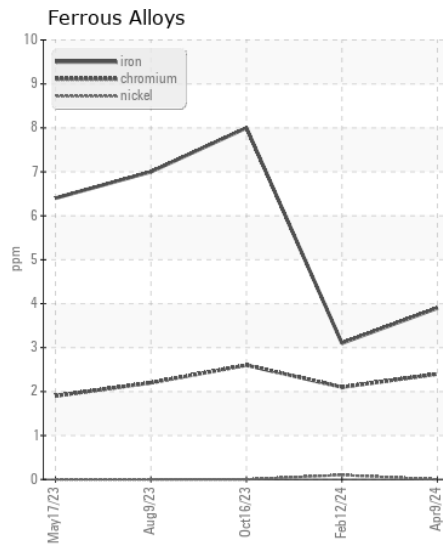
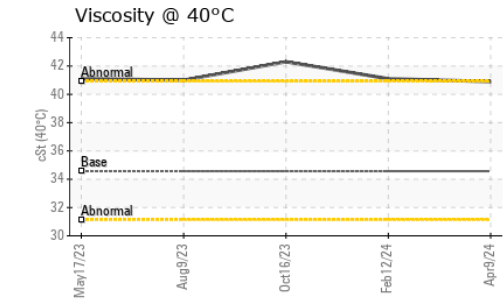
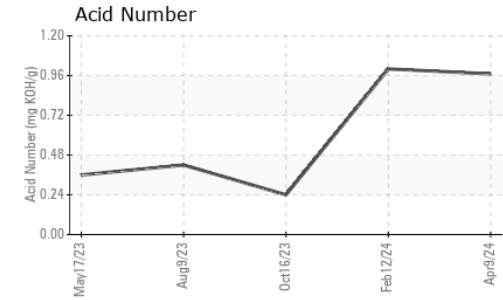
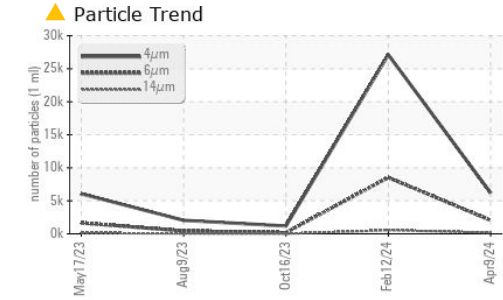
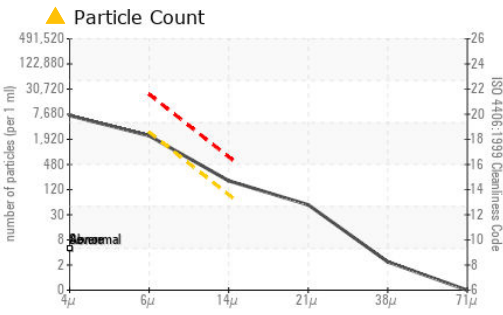
There is a moderate amount of particulates (2 to 100 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	3	6	4
Potassium	ppm	ASTM D5185m	>20	<1	3	2
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647		6189	27122	1181
Particles >6µm		ASTM D7647	>2500	2049	▲ 8524	165
Particles >14µm		ASTM D7647	>80	▲ 172	▲ 543	11
Particles >21µm		ASTM D7647	>20	▲ 46	▲ 105	3
Particles >38µm		ASTM D7647	>4	2	3	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>-/18/13	▲ 20/18/15	▲ 22/20/16	17/15/11
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	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	3	0
Boron	ppm	ASTM D5185m		32	38	16
Barium	ppm	ASTM D5185m		<1	0	3
Molybdenum	ppm	ASTM D5185m		37	44	18
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m		118	137	58
Calcium	ppm	ASTM D5185m		1353	1393	811
Phosphorus	ppm	ASTM D5185m		593	688	508
Zinc	ppm	ASTM D5185m		627	812	633
Sulfur	ppm	ASTM D5185m		2699	2646	2590
Acid Number (AN)	mg KOH/g	ASTM D8045		0.97	1.00	0.24
Visc @ 40°C	cSt	ASTM D445	34.57	40.9	41.1	42.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP436460
Lab Number : 06150248
Unique Number : 10980326
Test Package : MOB 2
Received : 16 Apr 2024
Tested : 17 Apr 2024
Diagnosed : 17 Apr 2024 - Wes Davis

CITY CARTING
 221 OLD GATE LN
 MILFORD, CT
 US 06460
 Contact: TAVINS BANKS
 tavins@citycart.net
 T: (203)223-3885
 F:

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)