



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id
VOLVO L120H 632959
Component
Hydraulic System
Fluid
BP AW 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		VCP434496	VCP383197	VCP384076
Sample Date		Client Info		14 Jun 2024	25 May 2023	19 Oct 2022
Machine Age	hrs	Client Info		4230	2670	1660
Oil Age	hrs	Client Info		1000	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Changed	Not Changed	Not Changed
Sample Status				ABNORMAL	ATTENTION	NORMAL

WEAR

All component wear rates are normal.

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

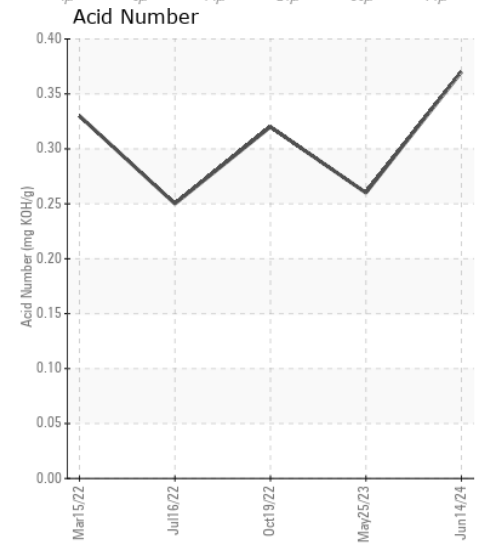
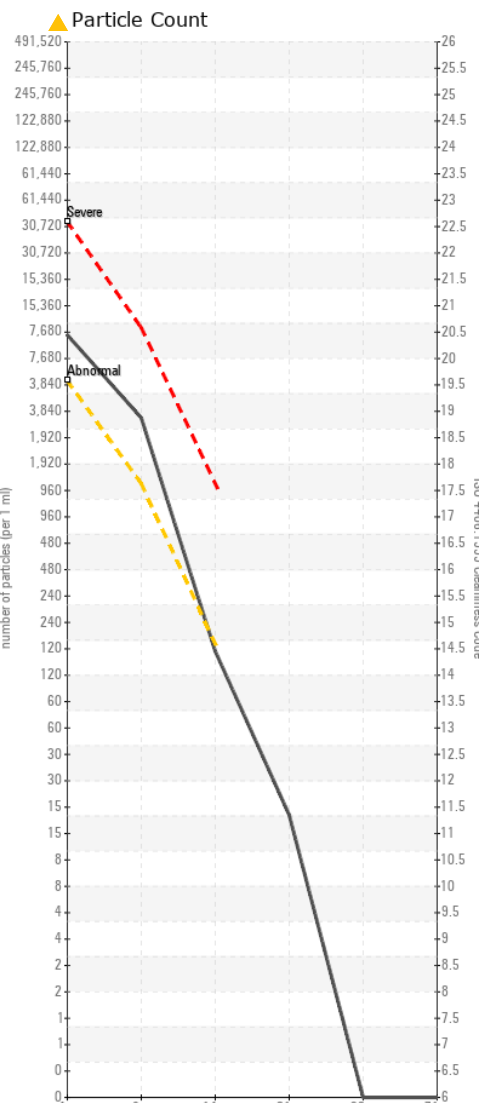
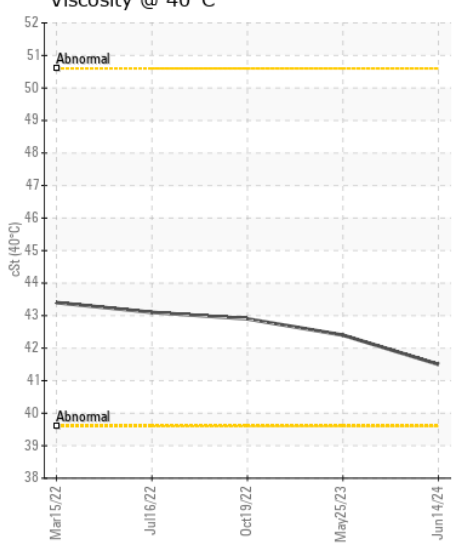
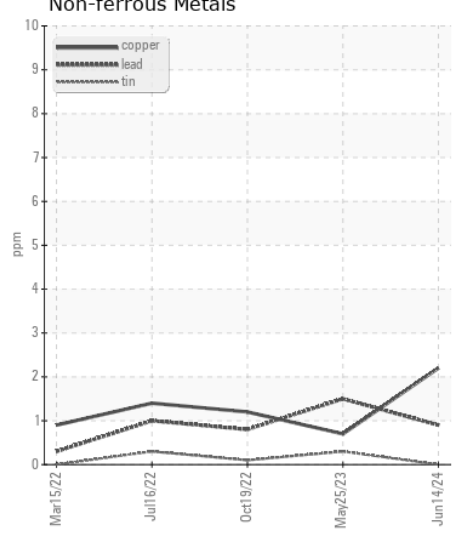
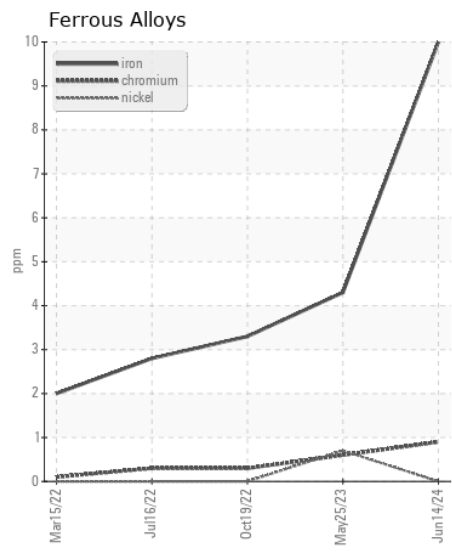
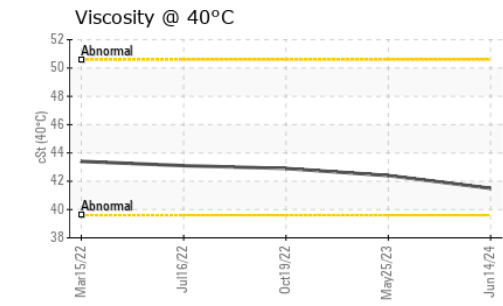
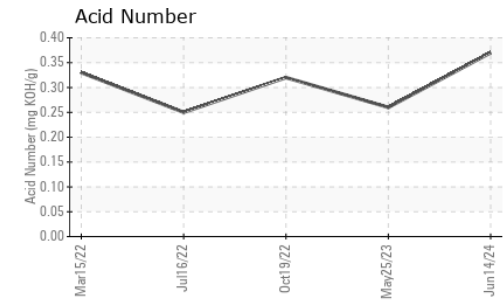
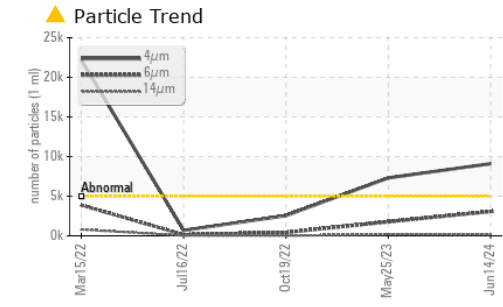
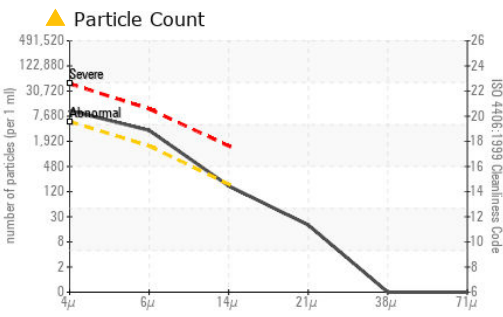
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

Silicon	ppm	ASTM D5185m	>20	5	2	2
Potassium	ppm	ASTM D5185m	>20	2	2	0
Water		WC Method	>0.2	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	9099	7312	2549
Particles >6µm		ASTM D7647	>1300	3074	1774	435
Particles >14µm		ASTM D7647	>160	145	178	22
Particles >21µm		ASTM D7647	>40	17	31	4
Particles >38µm		ASTM D7647	>10	0	1	1
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	20/19/14	20/18/15	19/16/12
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	>0.2	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		0	2	0
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		<1	<1	<1
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m		5	4	3
Calcium	ppm	ASTM D5185m		59	63	60
Phosphorus	ppm	ASTM D5185m		378	353	331
Zinc	ppm	ASTM D5185m		515	476	436
Sulfur	ppm	ASTM D5185m		2230	2025	2365
Acid Number (AN)	mg KOH/g	ASTM D8045		0.37	0.26	0.32
Visc @ 40°C	cSt	ASTM D445		41.5	42.4	42.9



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP434496
Lab Number : 06214576
Unique Number : 11087440
Test Package : MOB 2
Received : 19 Jun 2024
Tested : 20 Jun 2024
Diagnosed : 20 Jun 2024 - Wes Davis

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Certificate L2367
 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)