



VOLVO

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
VOLVO L90G 3117
Component
Hydraulic System
Fluid
CASTROL HD AW ISO 46 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP434846	VCP398128	VCP393316
Sample Date		Client Info		18 Jun 2024	17 Oct 2023	09 Jun 2023
Machine Age	hrs	Client Info		13585	13160	12700
Oil Age	hrs	Client Info		500	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				NORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	4	6	8
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	1	3	2
Lead	ppm	ASTM D5185m	>20	0	1	<1
Copper	ppm	ASTM D5185m	>150	2	2	4
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

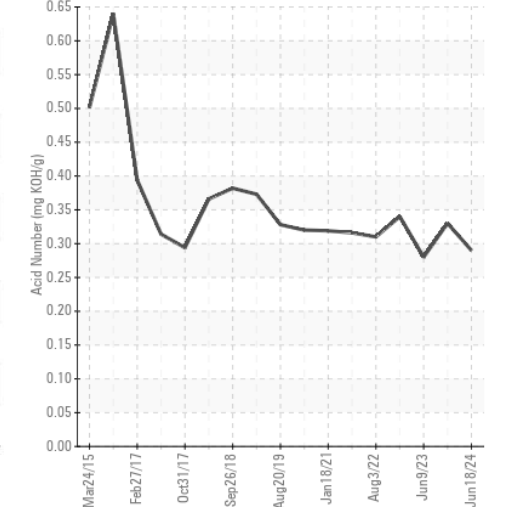
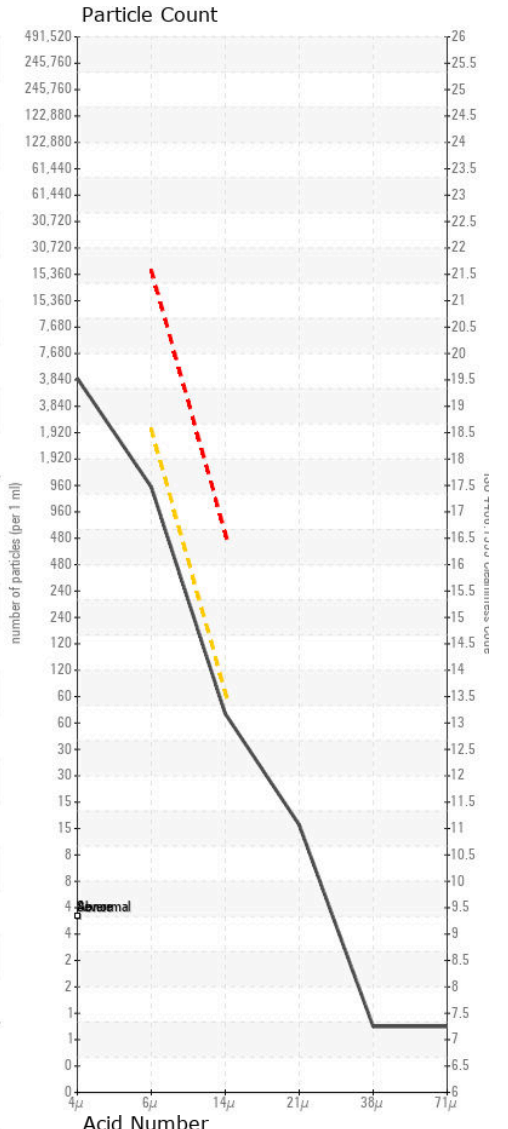
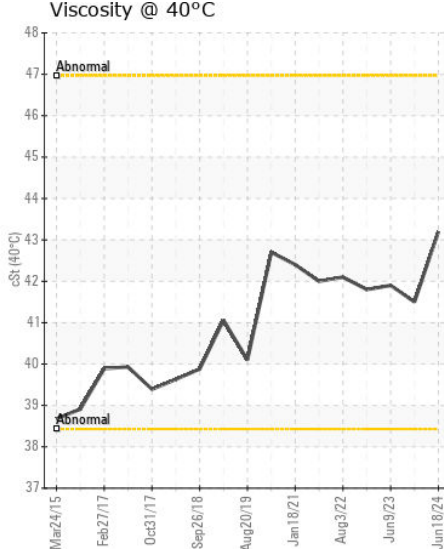
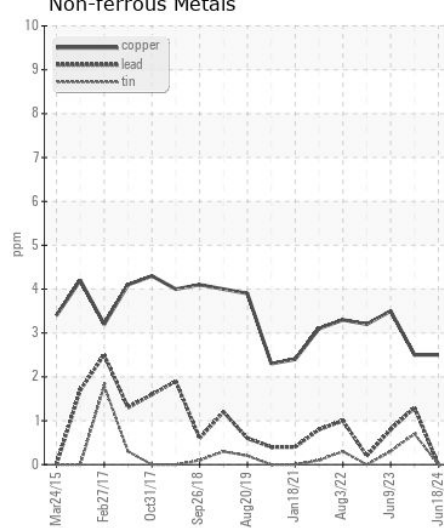
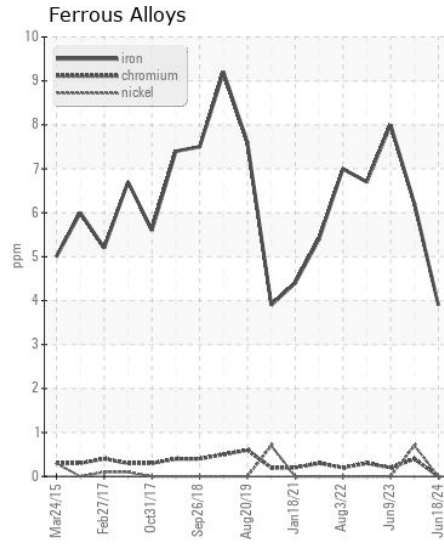
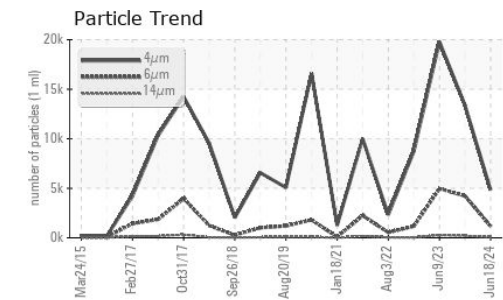
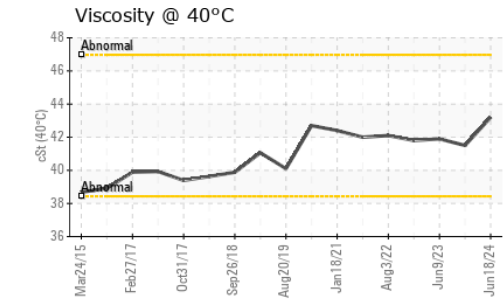
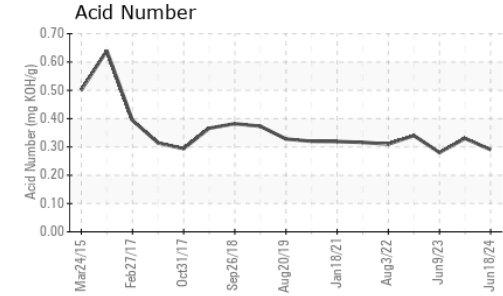
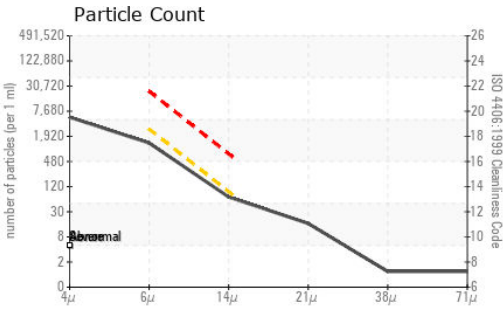
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>20	8	12	12
Potassium	ppm	ASTM D5185m	>20	2	2	2
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647		4830	13371	19792
Particles >6µm		ASTM D7647	>2500	1165	● 4224	▲ 4964
Particles >14µm		ASTM D7647	>80	60	▲ 200	▲ 274
Particles >21µm		ASTM D7647	>20	14	● 33	▲ 87
Particles >38µm		ASTM D7647	>4	1	0	4
Particles >71µm		ASTM D7647	>3	1	0	0
Oil Cleanliness		ISO 4406 (c)	>-/18/13	19/17/13	▲ 21/19/15	▲ 21/19/15
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	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	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		4	5	<1
Boron	ppm	ASTM D5185m		<1	<1	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		6	13	10
Calcium	ppm	ASTM D5185m		95	130	131
Phosphorus	ppm	ASTM D5185m		313	352	341
Zinc	ppm	ASTM D5185m		383	461	441
Sulfur	ppm	ASTM D5185m		2031	2489	2640
Acid Number (AN)	mg KOH/g	ASTM D8045		0.29	0.33	0.28
Visc @ 40°C	cSt	ASTM D445		43.2	41.5	41.9



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP434846 **Received** : 26 Jun 2024
Lab Number : 06221147 **Tested** : 27 Jun 2024
Unique Number : 11099344 **Diagnosed** : 27 Jun 2024 - 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)