



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id  
**VOLVO A45G 342201**  
Component  
**Hydraulic System**  
Fluid  
**VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ML0002732</b>	VCP396718	VCP395662
Sample Date		Client Info		<b>12 Jun 2024</b>	03 May 2023	01 Dec 2022
Machine Age	hrs	Client Info		<b>10429</b>	8572	8000
Oil Age	hrs	Client Info		<b>4609</b>	0	2000
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	Not Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>19</b>	15	15
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>8</b>	6	8
Lead	ppm	ASTM D5185m	>20	<b>3</b>	2	3
Copper	ppm	ASTM D5185m	>150	<b>9</b>	9	10
Tin	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

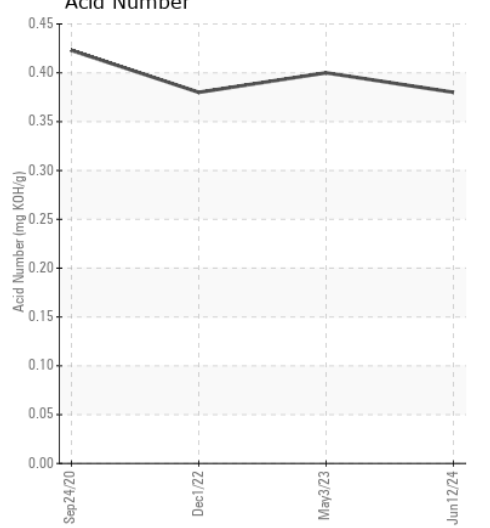
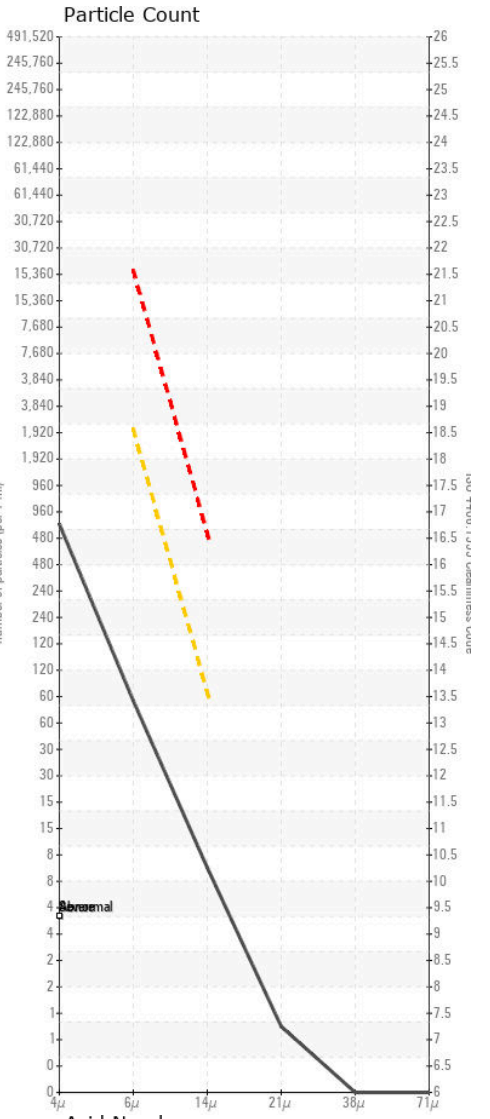
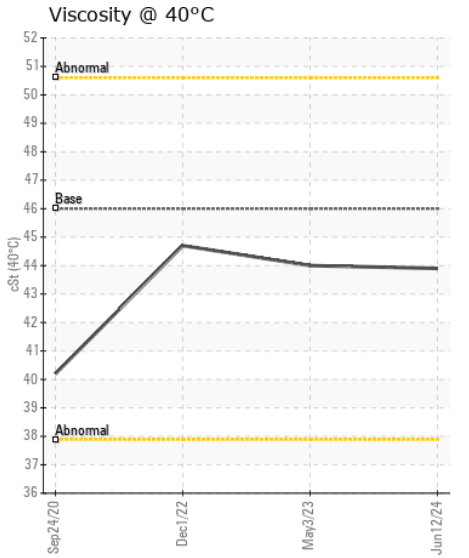
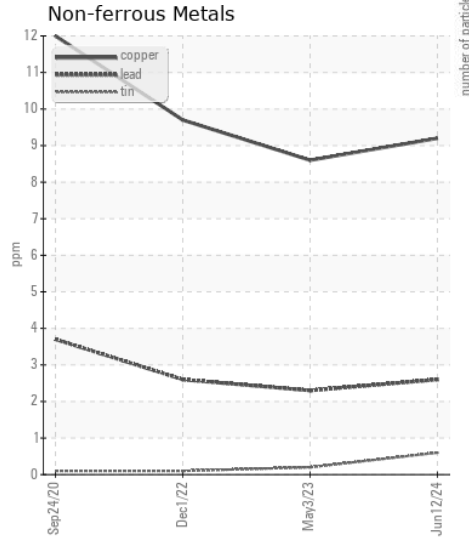
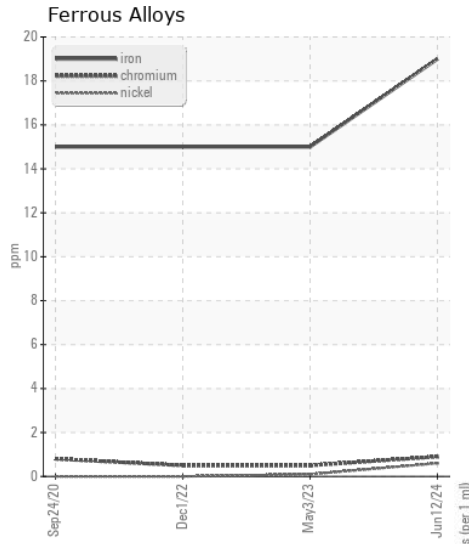
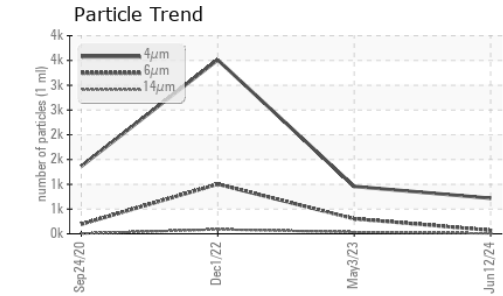
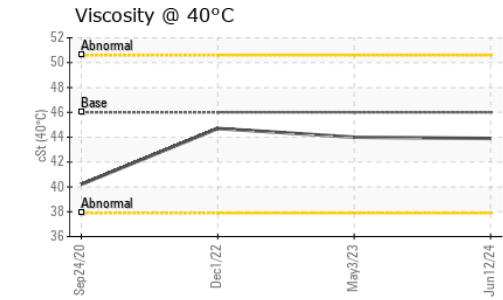
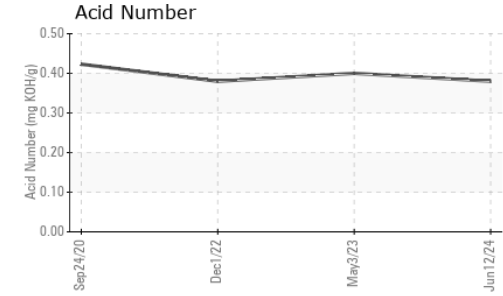
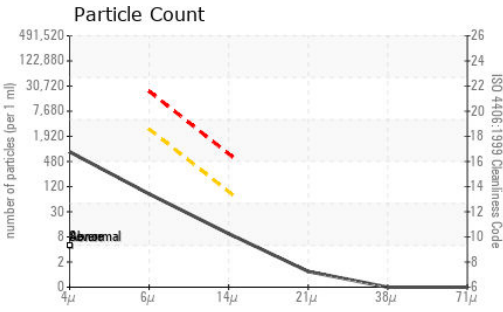
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>20	<b>16</b>	13	12
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	1	0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647		<b>718</b>	957	3512
Particles >6µm		ASTM D7647	>2500	<b>71</b>	304	1003
Particles >14µm		ASTM D7647	>80	<b>8</b>	34	89
Particles >21µm		ASTM D7647	>20	<b>1</b>	9	26
Particles >38µm		ASTM D7647	>4	<b>0</b>	0	1
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>-/18/13	<b>17/13/10</b>	17/15/12	19/17/14
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	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		<b>2</b>	2	3
Boron	ppm	ASTM D5185m	14	<b>5</b>	3	<1
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.0	<b>4</b>	2	2
Manganese	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	2.6	<b>16</b>	10	9
Calcium	ppm	ASTM D5185m	49	<b>159</b>	119	101
Phosphorus	ppm	ASTM D5185m	354	<b>369</b>	348	331
Zinc	ppm	ASTM D5185m	419	<b>469</b>	460	420
Sulfur	ppm	ASTM D5185m	3719	<b>3863</b>	3906	4494
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.38</b>	0.40	0.38
Visc @ 40°C	cSt	ASTM D445	46	<b>43.9</b>	44.0	44.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ML0002732  
**Lab Number** : 06211548  
**Unique Number** : 11084412  
**Test Package** : CONST

**MCCLEUNG-LOGAN EQUIPMENT CO - RICHMOND**  
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 GLEN ALLEN, VA  
 US 23060  
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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)