



# VOLVO

## OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>SEVERE</b>
FLUID CONDITION	<b>NORMAL</b>

Area  
**[S50601798 IAA BAY PT]**

Machine Id  
**VOLVO L90H 624600**

Component  
**Hydraulic System**

Fluid  
**VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)**



### RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. The oil change at the time of sampling has been noted. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation.

### WEAR

All component wear rates are normal.

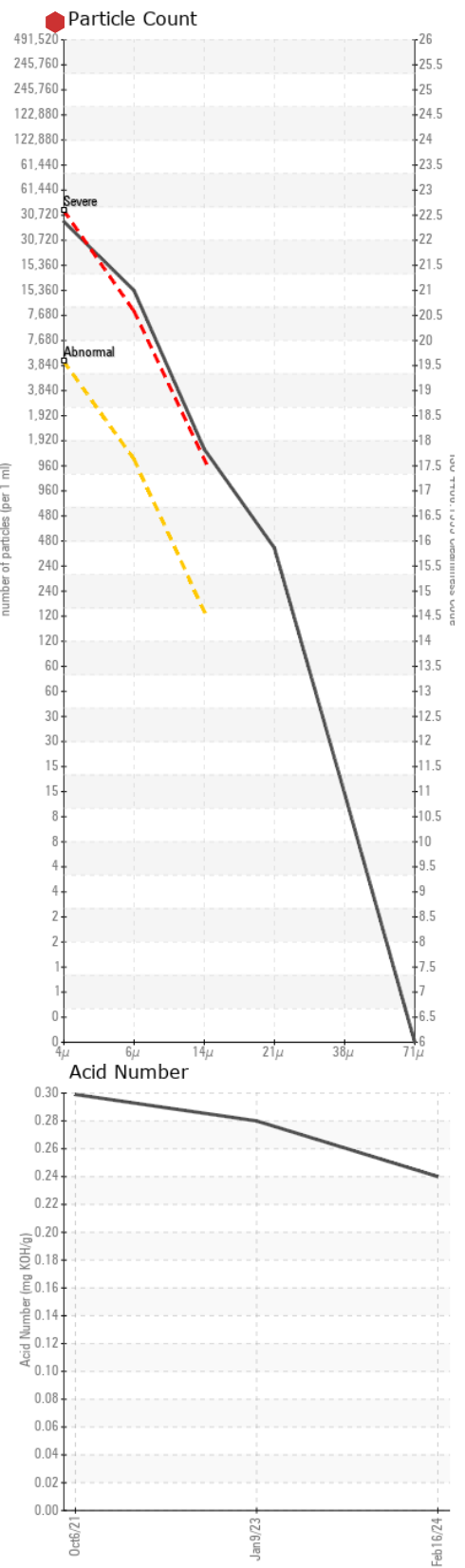
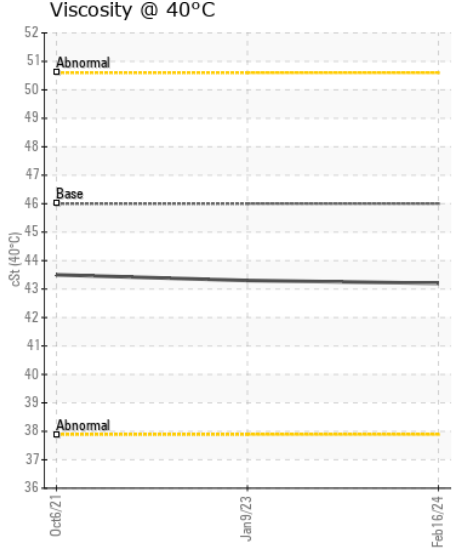
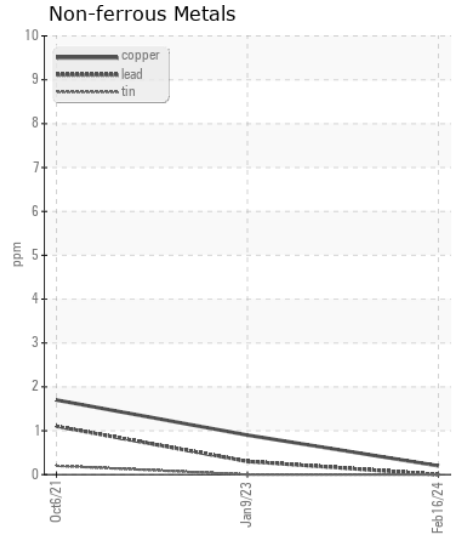
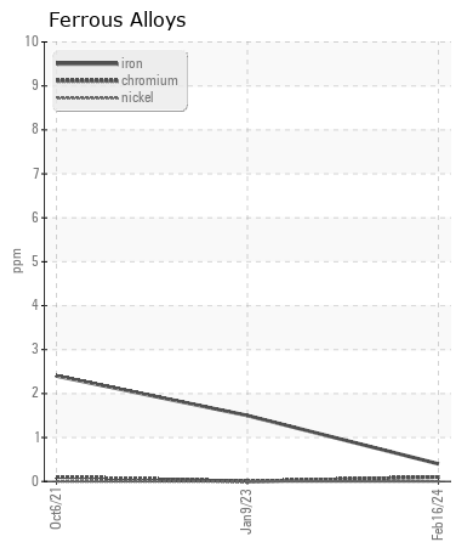
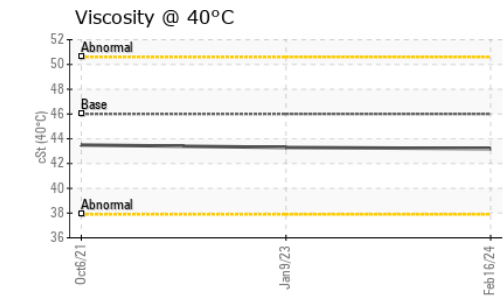
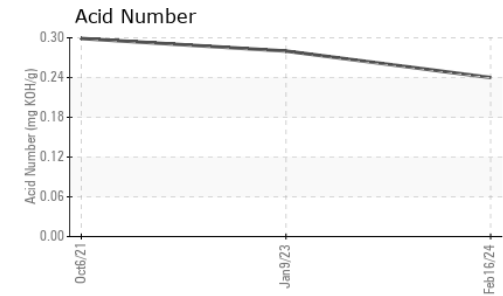
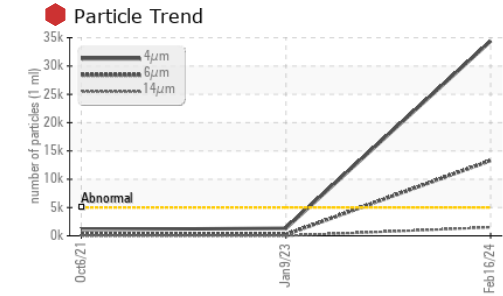
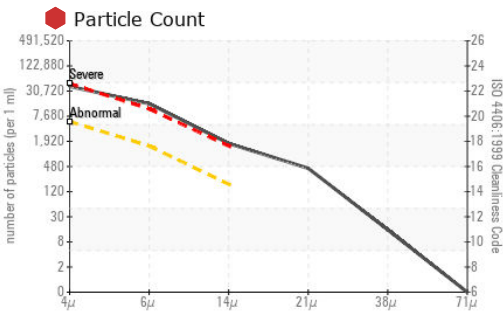
### CONTAMINATION

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

### 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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP335355</b>	VCP340509	VCP293820
Sample Date		Client Info		<b>16 Feb 2024</b>	09 Jan 2023	06 Oct 2021
Machine Age	hrs	Client Info		<b>9504</b>	7523	5204
Oil Age	hrs	Client Info		<b>0</b>	2000	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	N/A	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	N/A
Sample Status				<b>SEVERE</b>	NORMAL	ATTENTION
Iron	ppm	ASTM D5185m	>50	<b>&lt;1</b>	2	2
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185m	>20	<b>0</b>	<1	1
Copper	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	2
Tin	ppm	ASTM D5185m	>20	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Silicon	ppm	ASTM D5185m	>20	<b>3</b>	3	2
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>5000	<b>34385</b>	1335	1108
Particles >6µm		ASTM D7647	>1300	<b>13297</b>	211	240
Particles >14µm		ASTM D7647	>160	<b>1496</b>	11	14
Particles >21µm		ASTM D7647	>40	<b>383</b>	4	5
Particles >38µm		ASTM D7647	>10	<b>13</b>	1	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	1	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>22/21/18</b>	18/15/11	17/15/11
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	>0.2	<b>NEG</b>	NEG	NEG
Sodium	ppm	ASTM D5185m		<b>1</b>	<1	2
Boron	ppm	ASTM D5185m	14	<b>0</b>	0	<1
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	0.0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	2.6	<b>&lt;1</b>	<1	<1
Calcium	ppm	ASTM D5185m	49	<b>57</b>	56	74
Phosphorus	ppm	ASTM D5185m	354	<b>332</b>	339	334
Zinc	ppm	ASTM D5185m	419	<b>439</b>	454	465
Sulfur	ppm	ASTM D5185m	3719	<b>2259</b>	3132	3190
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.24</b>	0.28	0.299
Visc @ 40°C	cSt	ASTM D445	46	<b>43.2</b>	43.3	43.5



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP335355 **Received** : 22 Feb 2024  
**Lab Number** : 06097629 **Tested** : 23 Feb 2024  
**Unique Number** : 10890482 **Diagnosed** : 23 Feb 2024 - Wes Davis  
**Test Package** : MOB 2

**VCES- VOLVO CONSTRUCTION EQUIPMENT**  
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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)