



# OIL ANALYSIS REPORT



Machine Id  
**VOLVO L90H 14765 (S/N 626776)**  
 Component  
**Tank Hydraulic System**  
 Fluid  
**{not provided} (--- GAL)**

## Sample Rating Trend



ISO



## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. ( Customer Sample Comment: There were pieces of a snap ring stuck to the magnet inside hydraulic filter. Snap ring looks semi smashed. )

### Wear

All component wear rates are normal. No abnormal wear or visible metal detected.

### Contamination

There is a high amount of particulates present in the oil.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>ML0000211</b>	---	---
Sample Date	Client Info	<b>16 May 2024</b>	---	---
Machine Age	hrs Client Info	<b>1048</b>	---	---
Oil Age	hrs Client Info	<b>1048</b>	---	---
Oil Changed	Client Info	<b>Not Chngd</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.1	<b>NEG</b>	---	---

## WEAR METALS

method	limit/base	current	history1	history2
Iron ppm	ASTM D5185m >50	<b>6</b>	---	---
Chromium ppm	ASTM D5185m >20	<b>0</b>	---	---
Nickel ppm	ASTM D5185m >10	<b>&lt;1</b>	---	---
Titanium ppm	ASTM D5185m	<b>0</b>	---	---
Silver ppm	ASTM D5185m	<b>0</b>	---	---
Aluminum ppm	ASTM D5185m >20	<b>&lt;1</b>	---	---
Lead ppm	ASTM D5185m >20	<b>&lt;1</b>	---	---
Copper ppm	ASTM D5185m >150	<b>12</b>	---	---
Tin ppm	ASTM D5185m >20	<b>&lt;1</b>	---	---
Vanadium ppm	ASTM D5185m	<b>0</b>	---	---
Cadmium ppm	ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron ppm	ASTM D5185m	<b>0</b>	---	---
Barium ppm	ASTM D5185m	<b>0</b>	---	---
Molybdenum ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Manganese ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Magnesium ppm	ASTM D5185m	<b>6</b>	---	---
Calcium ppm	ASTM D5185m	<b>110</b>	---	---
Phosphorus ppm	ASTM D5185m	<b>344</b>	---	---
Zinc ppm	ASTM D5185m	<b>452</b>	---	---
Sulfur ppm	ASTM D5185m	<b>2391</b>	---	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm	ASTM D5185m >20	<b>3</b>	---	---
Sodium ppm	ASTM D5185m	<b>2</b>	---	---
Potassium ppm	ASTM D5185m >20	<b>&lt;1</b>	---	---

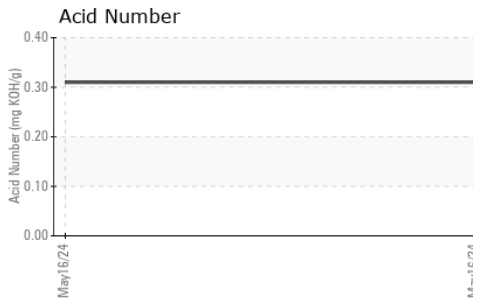
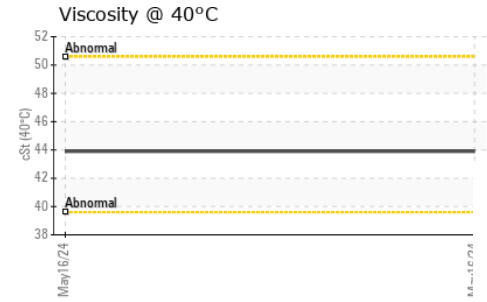
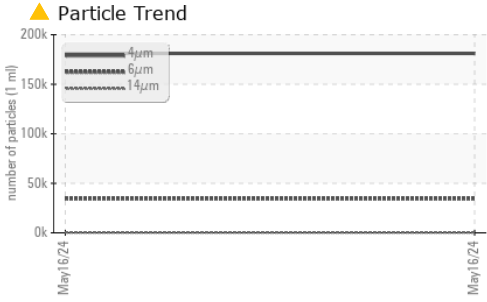
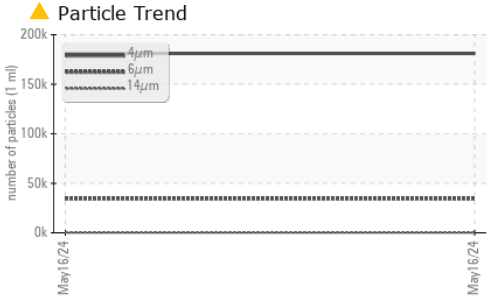
## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	<b>181115</b>	---	---
Particles >6µm	ASTM D7647 >2500	<b>▲ 34469</b>	---	---
Particles >14µm	ASTM D7647 >80	<b>▲ 355</b>	---	---
Particles >21µm	ASTM D7647 >20	<b>▲ 40</b>	---	---
Particles >38µm	ASTM D7647 >4	<b>0</b>	---	---
Particles >71µm	ASTM D7647 >3	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c) >--/18/13	<b>▲ 25/22/16</b>	---	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g	ASTM D8045	<b>0.31</b>	---	---


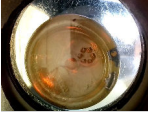
# OIL ANALYSIS REPORT



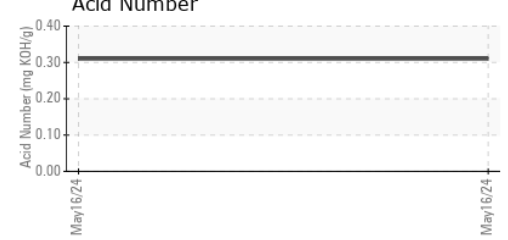
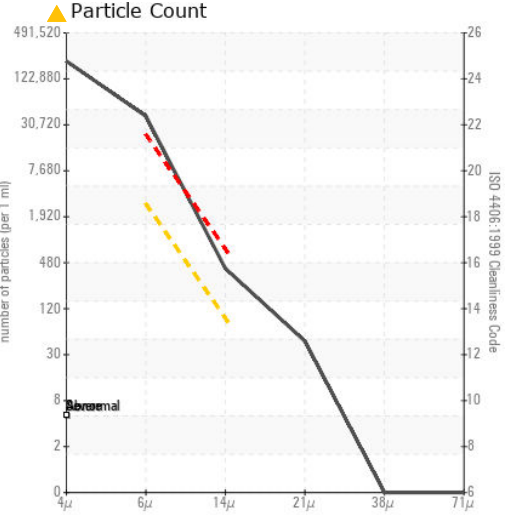
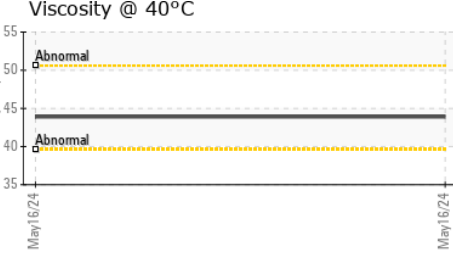
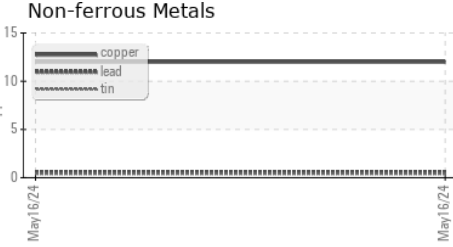
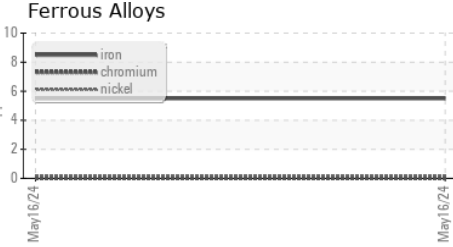
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	LIGHT	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	43.9	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color				no image	no image
Bottom				no image	no image

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ML0000211      **Received** : 20 May 2024  
**Lab Number** : 06184922      **Tested** : 22 May 2024  
**Unique Number** : 11036248      **Diagnosed** : 22 May 2024 - Don Baldrige  
**Test Package** : CONST

**McCLUNG-LOGAN EQUIPMENT CO - SALEM**  
 2025 COOK DRIVE  
 SALEM, VA  
 US 24153  
 Contact: SCOTT CARRIS  
 scarr@mccclung-logan.com  
 T: (540)418-5218  
 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)