



# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**VOLVO A60H 350146**  
 Component  
**Hydraulic System**  
 Fluid  
**VOLVO SUPER HYDRAULIC OIL 46 (55 GAL)**

## DIAGNOSIS

**Recommendation**  
 Resample at the next service interval to monitor.

**Wear**  
 All component wear rates are normal.

**Contamination**  
 The amount and size of particulates present in the system are acceptable. There is no indication of any contamination 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>ML0000050</b>	---	---
Sample Date	Client Info		<b>01 Apr 2024</b>	---	---
Machine Age	hrs	Client Info	<b>3890</b>	---	---
Oil Age	hrs	Client Info	<b>3890</b>	---	---
Oil Changed	Client Info		<b>Changed</b>	---	---
Sample Status			<b>NORMAL</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 >20	<b>2</b>	---	---
Chromium	ppm	ASTM D5185m >10	<b>&lt;1</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 >10	<b>2</b>	---	---
Lead	ppm	ASTM D5185m >10	<b>2</b>	---	---
Copper	ppm	ASTM D5185m >75	<b>2</b>	---	---
Tin	ppm	ASTM D5185m >10	<b>1</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	---	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 14	<b>63</b>	---	---
Barium	ppm	ASTM D5185m 0.0	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m 0.0	<b>1</b>	---	---
Manganese	ppm	ASTM D5185m 0.0	<b>0</b>	---	---
Magnesium	ppm	ASTM D5185m 2.6	<b>26</b>	---	---
Calcium	ppm	ASTM D5185m 49	<b>2535</b>	---	---
Phosphorus	ppm	ASTM D5185m 354	<b>887</b>	---	---
Zinc	ppm	ASTM D5185m 419	<b>1119</b>	---	---
Sulfur	ppm	ASTM D5185m 3719	<b>3593</b>	---	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	<b>10</b>	---	---
Sodium	ppm	ASTM D5185m	<b>2</b>	---	---
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	---	---

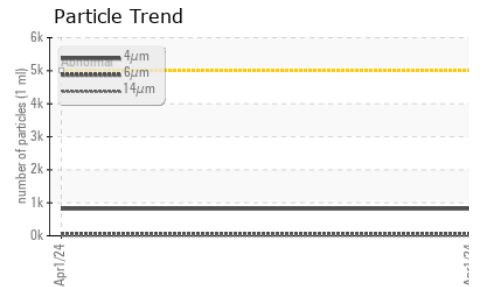
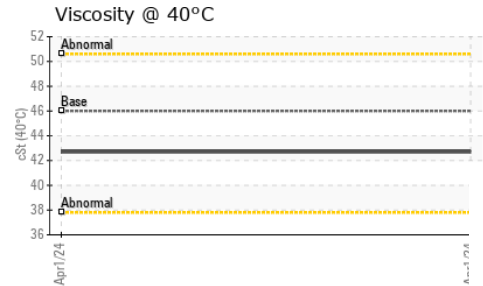
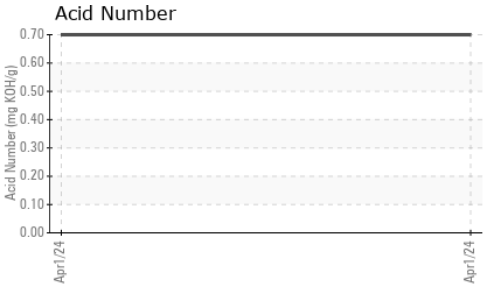
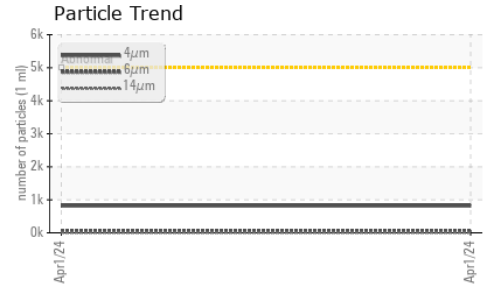
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>818</b>	---	---
Particles >6µm	ASTM D7647	>1300	<b>64</b>	---	---
Particles >14µm	ASTM D7647	>160	<b>5</b>	---	---
Particles >21µm	ASTM D7647	>40	<b>2</b>	---	---
Particles >38µm	ASTM D7647	>10	<b>0</b>	---	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>17/13/10</b>	---	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.70</b>	---	---

# OIL ANALYSIS REPORT



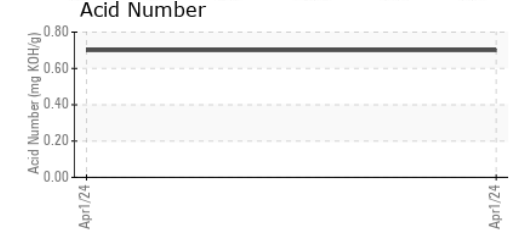
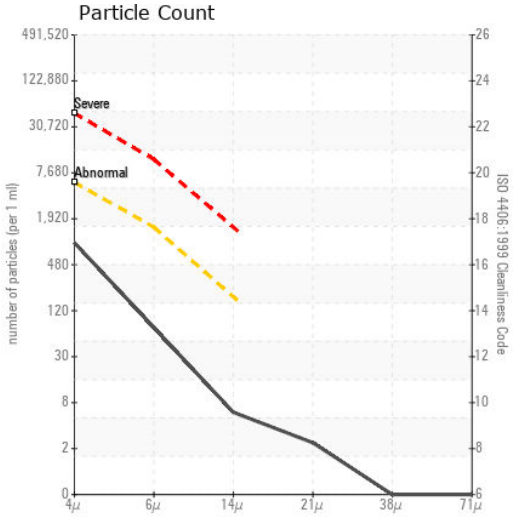
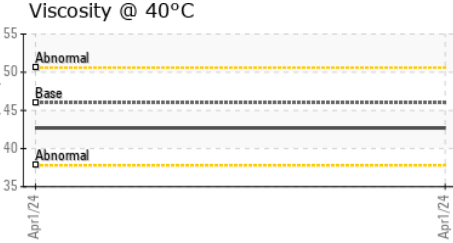
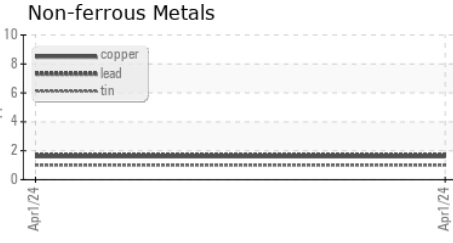
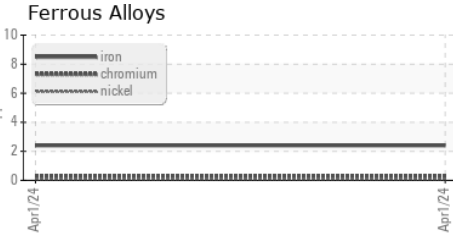
VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Precipitate	scalar	*Visual	NONE	NONE	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
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	46	42.7	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------

Color				no image	no image
Bottom				no image	no image

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ML0000050      **Received** : 02 Apr 2024  
**Lab Number** : 06136883      **Tested** : 03 Apr 2024  
**Unique Number** : 10956348      **Diagnosed** : 04 Apr 2024 - Don Baldrige  
**Test Package** : CONST

**McCLUNG-LOGAN EQUIPMENT CO - BALTIMORE**  
 4601 WASHINGTON BOULEVARD  
 BALTIMORE, MD  
 US 21227  
 Contact: Emylio Pineda  
 epineda@mcclung-logan.com

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)      F: (410)242-7835