



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



Machine Id  
**VOLVO L220H 3377**  
Component  
**Hydraulic System**  
Fluid  
**VOLVO SUPER HYDRAULIC OIL 46 (40 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ML0001338</b>	---	---
Sample Date		Client Info		<b>03 May 2024</b>	---	---
Machine Age	hrs	Client Info		<b>4306</b>	---	---
Oil Age	hrs	Client Info		<b>4306</b>	---	---
Filter Age	hrs	Client Info		<b>4306</b>	---	---
Oil Changed		Client Info		<b>Changed</b>	---	---
Filter Changed		Client Info		<b>Changed</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>2</b>	---	---
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	---	---
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m		<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	---	---
Lead	ppm	ASTM D5185m	>20	<b>1</b>	---	---
Copper	ppm	ASTM D5185m	>20	<b>2</b>	---	---
Tin	ppm	ASTM D5185m	>20	<b>&lt;1</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

**CONTAMINATION**

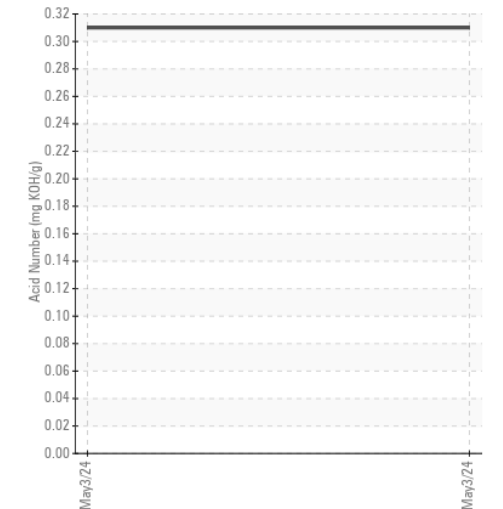
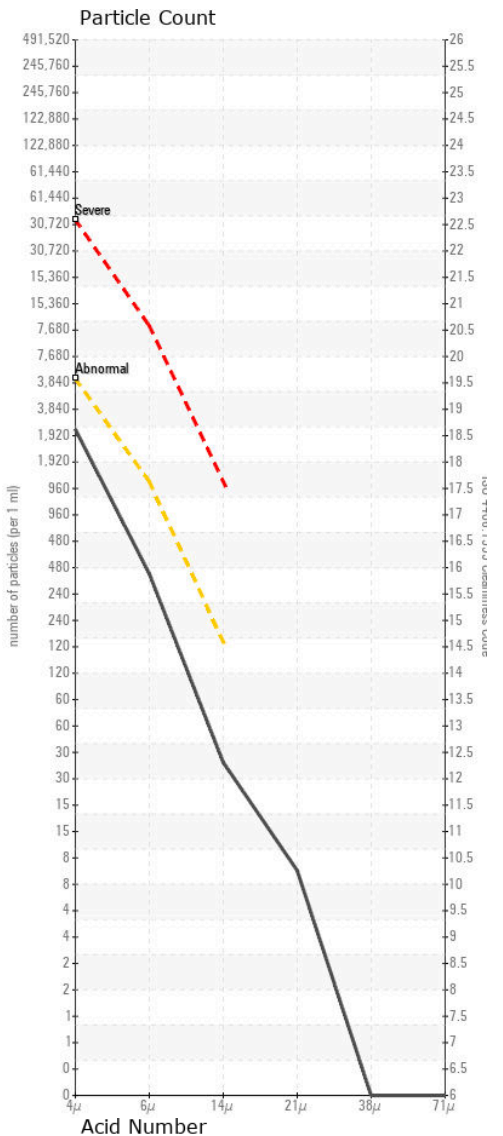
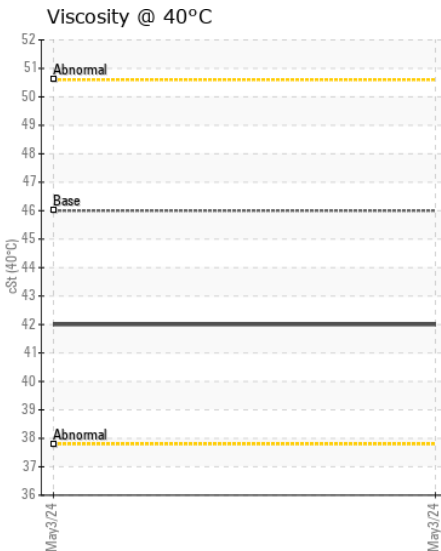
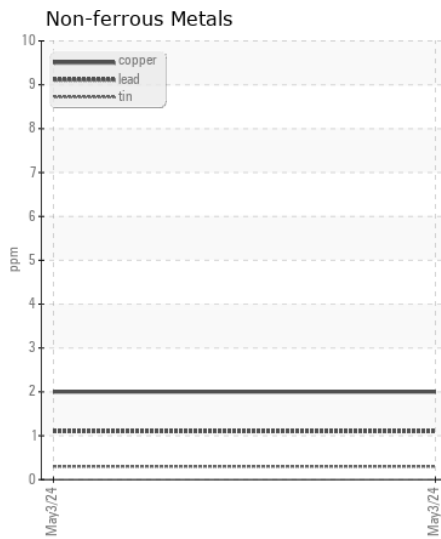
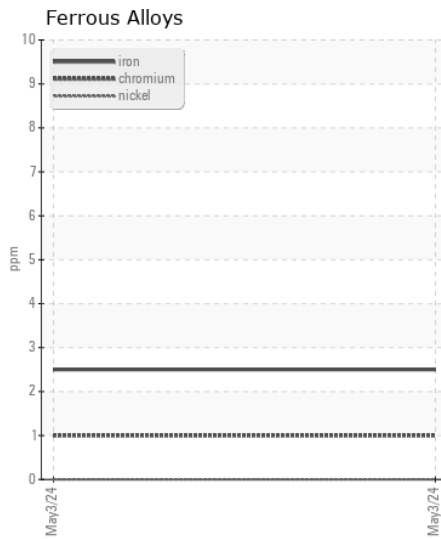
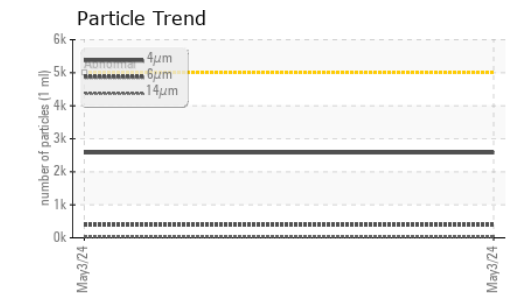
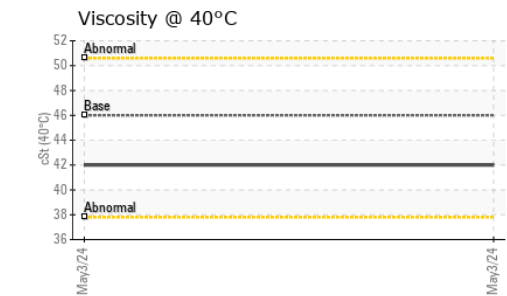
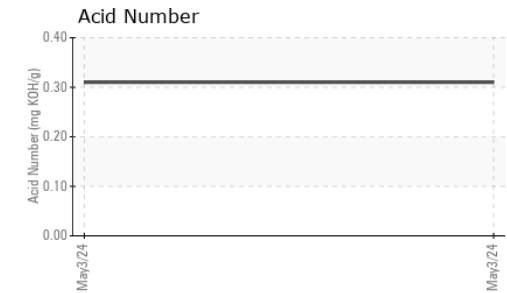
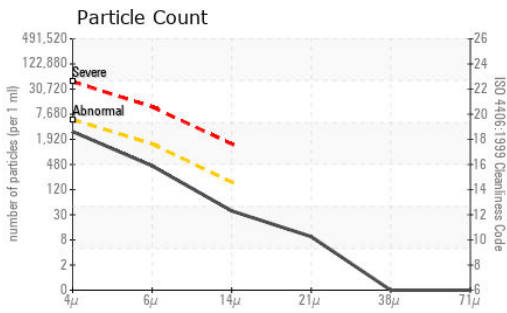
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>20	<b>2</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	---	---
Water		WC Method	>0.2	<b>NEG</b>	---	---
Particles >4µm		ASTM D7647	>5000	<b>2578</b>	---	---
Particles >6µm		ASTM D7647	>1300	<b>390</b>	---	---
Particles >14µm		ASTM D7647	>160	<b>33</b>	---	---
Particles >21µm		ASTM D7647	>40	<b>8</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>19/16/12</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	---	---

**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>0</b>	---	---
Boron	ppm	ASTM D5185m	14	<b>0</b>	---	---
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m	0.0	<b>0</b>	---	---
Manganese	ppm	ASTM D5185m	0.0	<b>0</b>	---	---
Magnesium	ppm	ASTM D5185m	2.6	<b>1</b>	---	---
Calcium	ppm	ASTM D5185m	49	<b>96</b>	---	---
Phosphorus	ppm	ASTM D5185m	354	<b>352</b>	---	---
Zinc	ppm	ASTM D5185m	419	<b>439</b>	---	---
Sulfur	ppm	ASTM D5185m	3719	<b>1284</b>	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.31</b>	---	---
Visc @ 40°C	cSt	ASTM D445	46	<b>42.0</b>	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ML0001338  
**Lab Number** : 06175398  
**Unique Number** : 11021451  
**Test Package** : CONST

**Received** : 10 May 2024  
**Tested** : 13 May 2024  
**Diagnosed** : 14 May 2024 - Don Baldrige

**MCCLUNG-LOGAN EQUIPMENT CO - MANASSAS**  
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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)