WEAR CONTAMINATION FLUID CONDITION

ABNORMAL NORMAL ATTENTION

To a

## [W02008035] Wachine Id VOLVO L150H 7193

Component Diesel Engine

**MOBIL 15W40 (14 GAL)** 

REC	OMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. ( Customer Sample Comment: W02008035 2000 hour service )

•	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		ML0886307	VCP426057	
	Sample Date		Client Info		23 Feb 2024	02 Nov 2023	
	Machine Age	hrs	Client Info		2065	1494	
	Oil Age	hrs	Client Info		500	1500	
	Filter Age	hrs	Client Info		500	0	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				ABNORMAL	ABNORMAL	
	Iron	ppm	ASTM D5185m	>200	0	16	
-	Chromium	ppm	ASTM D5185m	>20	0	<1	
	Nickel	ppm	ASTM D5185m	>5	0	<1	

## **WEAR**

The copper level has decreased, but is still abnormal. All other component wear rates are normal.

11011	ppiii	ASTIVI DSTOSIII	>200	U	10	
Chromium	ppm	ASTM D5185m	>20	0	<1	
Nickel	ppm	ASTM D5185m	>5	0	<1	
Titanium	ppm	ASTM D5185m		0	<1	
Silver	ppm	ASTM D5185m	>2	0	0	
Aluminum	ppm	ASTM D5185m	>30	3	2	
Lead	ppm	ASTM D5185m	>40	2	<1	
Copper	ppm	ASTM D5185m	>20	<b>4</b> 29	<u></u> 132	
Tin	ppm	ASTM D5185m	>20	<1	2	
Vanadium	ppm	ASTM D5185m		<1	0	
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Silicon	ppm	ASTM D5185m	>20	7	23	
Potoccium	nnm	ACTM DE195m	× 20	2	Λ	

## CONTAMINATION

There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	7	23	
Potassium	ppm	ASTM D5185m	>20	2	4	
Fuel	%	ASTM D3524	>6.0	<1.0	0.6	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
Soot %	%	*ASTM D7844	>3	0.1	0.2	
Nitration	Abs/cm	*ASTM D7624	>20	7.6	9.6	
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.3	23.5	
Silt	scalar	*Visual	NONE	NONE	NONE	
Debris	scalar	*Visual	NONE	NONE	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Appearance	scalar	*Visual	NORML	NORML	NORML	
Odor	scalar	*Visual	NORML	NORML	NORML	
<b>Emulsified Water</b>	scalar	*Visual	>0.2	NEG	NEG	
Sodium	nnm	ΔSTM D5185m	<11R	2	Δ	

## FLUID CONDITION

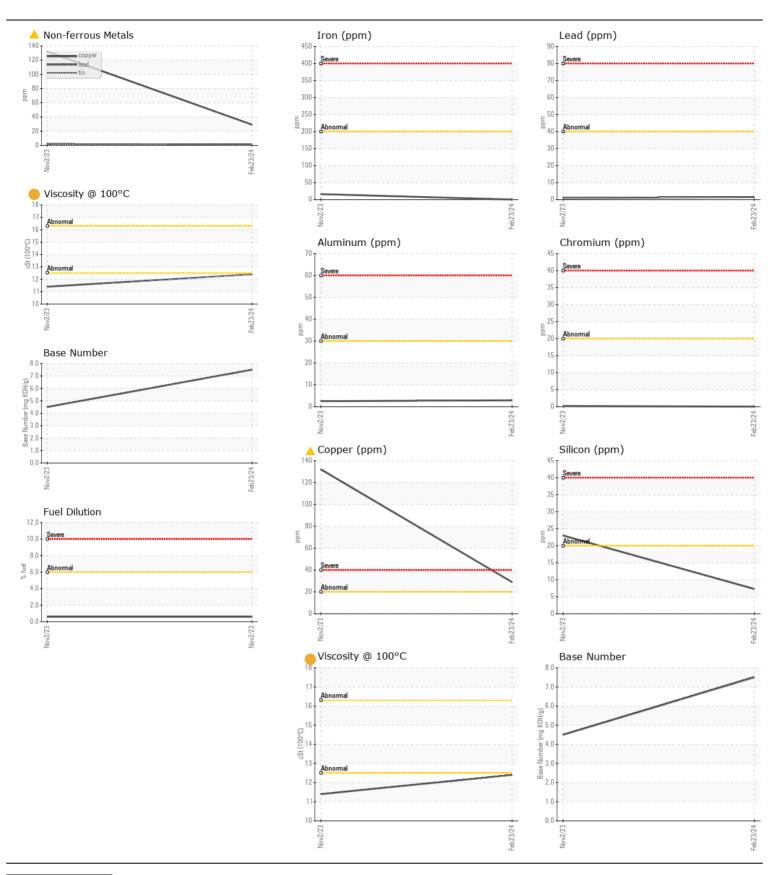
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

	<b>Emulsified Water</b>	scalar	*Visual	>0.2	NEG	NEG	
•							
	Sodium	ppm	ASTM D5185m	>118	2	4	
	Boron	ppm	ASTM D5185m		321	18	
	Barium	ppm	ASTM D5185m		0	0	
	Molybdenum	ppm	ASTM D5185m		121	83	
	Manganese	ppm	ASTM D5185m		<1	3	
	Magnesium	ppm	ASTM D5185m		611	158	
	Calcium	ppm	ASTM D5185m		1714	2136	
	Phosphorus	ppm	ASTM D5185m		801	963	
	Zinc	ppm	ASTM D5185m		959	1275	
	Sulfur	ppm	ASTM D5185m		2617	3584	
	Oxidation	Abs/.1mm	*ASTM D7414	>25	16.5	17.4	
	Base Number (BN)	mg KOH/g	ASTM D2896		7.5	4.5	

ASTM D445

Visc @ 100°C cSt

12.4





Laboratory Sample No. Unique Number : 10898959

Lab Number : 06100729

: ML0886307

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received **Tested** 

: 26 Feb 2024 : 28 Feb 2024 Diagnosed : 28 Feb 2024 - Don Baldridge

MCCLUNG-LOGAN EQUIPMENT CO - MANASSAS 8450 QUARRY ROAD

MANASSAS, VA US 20110

F: (703)393-7844

Test Package: MOBCE (Additional Tests: FuelDilution, PercentFuel, TBN) Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369.

Contact: MIKE MAYHUGH MMAYHUGH@MCCLUNG-LOGAN.COM T: (703)393-7344

\* - 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)