

WEAR CONTAMINATION FLUID CONDITION

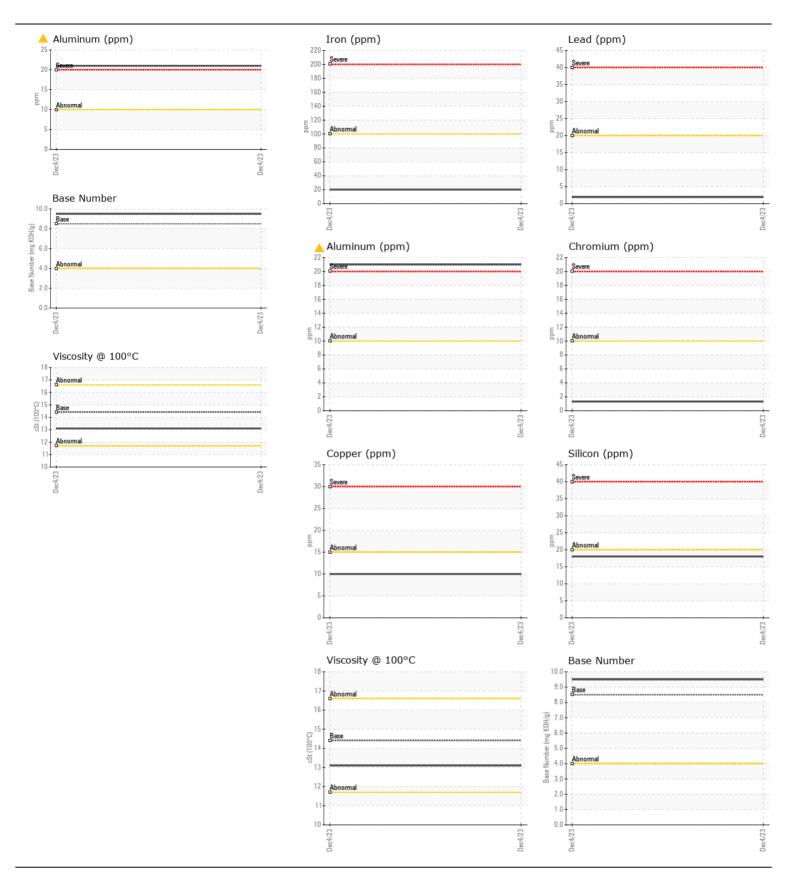
ABNORMAL NORMAL NORMAL



VOLVO L110H 632644

Component Diesel Engine

Test	DIESEL ENGINE OIL SAE 40 (-	GAL)						
No corrective action is recommended at this time. Resample at the next service interval to monitor.	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
No corrective action is recommended at this time. Hesample at the next service interval to monitor.	No corrective action is recommended at this time. Resample at the	Sample Number		Client Info				
Machine Age hrs Client Info 0 0 0 0 0 0 0 0 0		Sample Date		Client Info		04 Dec 2023		
Filter Age Nrs Client Info Client Info Changed Client Info Changed Client Info Changed ABNORMAL Client Info Changed ABNORMAL Client Info Changed ABNORMAL Client Info Changed ABNORMAL Client Info Changed Client Info Changed Client Info Client Info Changed Client Info C		Machine Age	hrs	Client Info		1860		
Ol Changed Chent Info NA		Oil Age	hrs	Client Info		0		
Filter Changed Sample Status			hrs	Client Info		0		
VEAR		_		Client Info		N/A		
Iron		_		Client Info		Changed		
Chromium September Septe		Sample Status				ABNORMAL		
Chromium September Septe	WEAR	Iron	nnm	ΔSTM D5185m	\100	20		
Nickel	WLAN							
Titanium ppm ASTM D5885	· · · · · · · · · · · · · · · · · · ·							
Silver ppm ASTM D5185m >2					710			
Aluminum ppm ASTM DSIBSm >10 A 21					>2			
Lead ppm ASTM DS165m >20 2								
Copper		Lead						
Tin		Copper		ASTM D5185m	>15	10		
Vanadium ppm ASTM D5185m 0			ppm	ASTM D5185m	>10	2		
Vellow Metal Scalar Visual NONE NO		Vanadium		ASTM D5185m		0		
Silicon ppm ASTM D5185m 20 18		White Metal	scalar	*Visual	NONE	NONE		
Potassium Pota		Yellow Metal	scalar	*Visual	NONE	NONE		
Potassium Pota	CONTANUNATION	O'''						
Fuel WC Method VC Method	CONTAMINATION							
Water WC Method So.0 NEG So.0 So.0 NEG So.0 So.0 NEG So.0 So.0 NEG So.0 So.0 So.0 NEG So.0 S	There is no indication of any contamination in the oil.		ppm					
Glycol								
Soot %					>0.1			
Nitration Abs/cm *ASTM D7624 >20 8.7			0/		- 3			
Sulfation Abs/.tmm *ASTM D7415 >30 22.0 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NOR								
Silt Scalar *Visual NONE NONE NONE Sand/Dirt Scalar *Visual NONE NONE Scalar *Visual NORML NORML Scalar *Visual NORML NORML Scalar *Visual Scalar *Visual Scalar *Visual NORML Scalar *Visual Scalar *Visual NORML Scalar *Visual NORML Scalar *Visual Scalar *Visual *Visual *Scalar *Visual *Scalar *Visual *Scalar *Visual *S								
Debris Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NORML NORML Scalar *Visual NORML NORML Scalar *Visual NORML NORML Scalar *Visual NORML NORML Scalar *Visual NORML *Visual NORML *Visual NORML *Visual NORML *Visual *Visual NORML *Visual *								
Sand/Dirt Scalar *Visual NONE NONE NONE Appearance Scalar *Visual NORML NORM								
Codor Scalar Visual NORML NORML NORML Full		Sand/Dirt						
Codor Scalar *Visual NORML NORML Fmulsified Water Scalar *Visual Visual Visua		Appearance	scalar	*Visual	NORML	NORML		
Sodium ppm ASTM D5185m >216 0 Boron ppm ASTM D5185m 250 27 Barium ppm ASTM D5185m 10 4 Molybdenum ppm ASTM D5185m 10 39 Manganese ppm ASTM D5185m 100 39 Manganese ppm ASTM D5185m 450 491 Calcium ppm ASTM D5185m 3000 1625 Phosphorus ppm ASTM D5185m 1350 1120 Sulfur ppm ASTM D5185m 4250 3179 Calcium ppm ASTM D7414 >25 21.0 Calcium ppm ASTM D7414 Calcium ppm ASTM D7414 Calcium ppm ASTM D7414 Calcium ppm ASTM D7414 Calcium ppm ASTM D7414 Cal			scalar	*Visual	NORML	NORML		
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service. Barium ppm ASTM D5185m 10 4 Molybdenum ppm ASTM D5185m 100 39 Magnesium ppm ASTM D5185m 450 491 Calcium ppm ASTM D5185m 3000 1625 Phosphorus ppm ASTM D5185m 1150 937 Zinc ppm ASTM D5185m 1350 1120 Sulfur ppm ASTM D5185m 4250 3179 Oxidation Abs/.1mm *ASTM D7414 >25 21.0 Base Number (BN) mg KOH/g ASTM D2896 8.5 9.5		Emulsified Water	scalar	*Visual	>0.1	NEG		
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Manganese ppm ASTM D5185m <1								
Magnesium ppm ASTM D5185m 450 491 Calcium ppm ASTM D5185m 3000 1625 Phosphorus ppm ASTM D5185m 1150 937 Zinc ppm ASTM D5185m 1350 1120 Sulfur ppm ASTM D5185m 4250 3179 Oxidation Abs/.1mm *ASTM D7414 >25 21.0 Base Number (BN) mg KOH/g ASTM D2896 8.5 9.5		•			100			
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Certificate L2367

Unique Number : 10870766

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : VCP431798 Lab Number : 06083321

Received **Tested**

: 08 Feb 2024 : 08 Feb 2024 Diagnosed

: 09 Feb 2024 - Don Baldridge

COVANTA 350 FLAKENBURG ROAD TAMPA, FL

US 33619 Contact: SERVICE MANAGER

Test Package : MOB 1 (Additional Tests: TBN) 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:

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