WEAR CONTAMINATION **FLUID CONDITION**

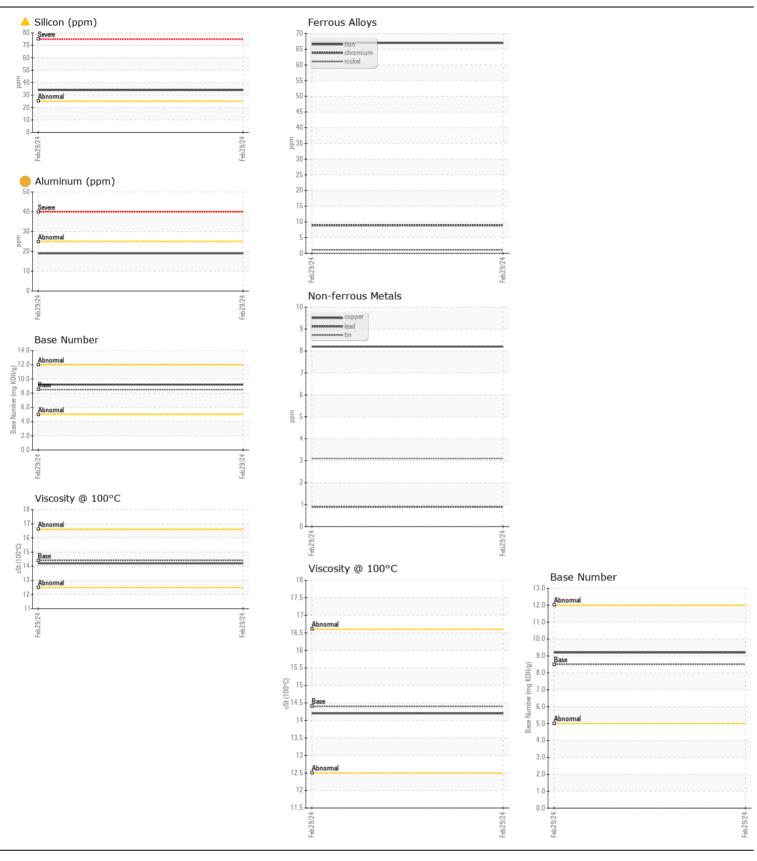
ATTENTION ABNORMAL NORMAL

VOLVO L90H 623127

Component

Diesel Engine

Diesel Engine DIESEL ENGINE OIL SAE 40 (GAL)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		ASC0008832		
We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Resample at the next service interval to monitor.	Sample Date		Client Info		29 Feb 2024		
	Machine Age	hrs	Client Info		10477		
	Oil Age	hrs	Client Info		10477		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				ABNORMAL		
VEAR	Iron	nnm	ASTM D5185m	>100	67		
YLAN	Chromium	ppm	ASTM D5185m		9		
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		1		
	Titanium	ppm	ASTM D5185m	>2			
	Silver	ppm	ASTM D5185m	~2	<1 0		
	Aluminum	ppm	ASTM D5185m		<u> </u>		
	Lead	ppm	ASTM D5185m		<u> </u> 19 <1		
		ppm	ASTM D5185m		< I 8		
	Copper Tin	ppm	ASTM D5185m		3		
	Vanadium	ppm	ASTM D5185m	>10	0		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	<u>▲</u> 34		
Elemental levels of silicon (Si) and aluminum (Al) indicate aluminasilicate (coarse dirt) ingress.	Potassium	ppm	ASTM D5185m		2		
	Fuel		WC Method		<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol	21	WC Method	0	NEG		
	Soot %	%	*ASTM D7844		0.9		
	Nitration	Abs/cm	*ASTM D7624	>20	8.3		
	Sulfation	Abs/.1mm	*ASTM D7415		19.7		
	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	>0.2	NEG		
FLUID CONDITION 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.	Sodium	ppm	ASTM D5185m	>216	4		
	Boron	ppm	ASTM D5185m	250	9		
	Barium	ppm	ASTM D5185m	10	0		
	Molybdenum	ppm	ASTM D5185m	100	61		
	Manganese	ppm	ASTM D5185m		1		
	Magnesium	ppm	ASTM D5185m	450	962		
	Calcium	ppm	ASTM D5185m	3000	1271		
	Phosphorus	ppm	ASTM D5185m	1150	1140		
	Zinc	ppm	ASTM D5185m	1350	1329		
	Sulfur	ppm	ASTM D5185m	4250	3523		
	Oxidation	Abs/.1mm	*ASTM D7414	>25	15.8		
	Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.2		





Laboratory Sample No. Unique Number: 10930252

: ASC0008832 Lab Number : 06121419

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 18 Mar 2024 **Tested**

: 19 Mar 2024 Diagnosed : 20 Mar 2024 - Don Baldridge

IAA - INSURANCE AUTO AUCTIONS - OAK BROOK 701 HARGER RD, SUITE 201 OAK BROOK, IL

US 60523 Contact: Service Manager

Test Package : CONST (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)

T: F: