WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL

Area

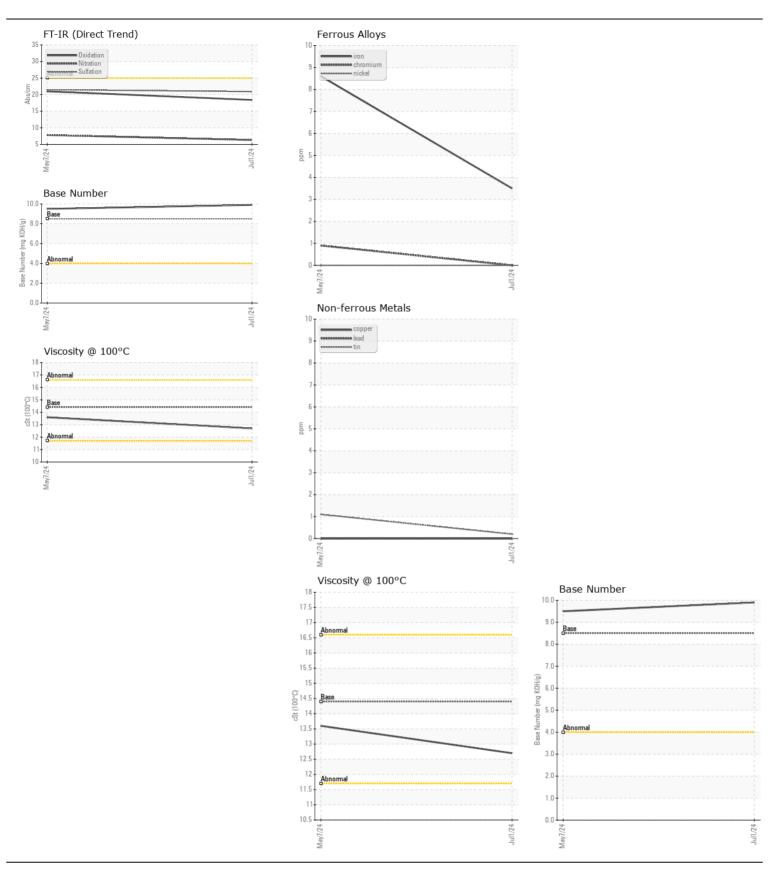
## [W02008504]

**VOLVO L70H 624729** 

Diesel Engine

DIESEL ENGINE OIL SAE 40 (5 GAL)

DIESEL ENGINE OIL SAE 40 (5	GAL)						
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
HEOOMMENDATION	Sample Number	OOW	Client Info	LITTIOTION	ML0001094	ML0001128	,
Resample at the next service interval to monitor. ( Customer Sample Comment: W02008504 )	Sample Date		Client Info		01 Jul 2024	07 May 2024	
	Machine Age	hrs	Client Info		3922	3578	
	Oil Age	hrs	Client Info		344	500	
	Filter Age	hrs	Client Info		0	500	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status		0.1011111110		NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185m	>100	4	9	
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>10	0	<1	
	Nickel	ppm	ASTM D5185m	>10	0	0	
	Titanium	ppm	ASTM D5185m		0	0	
	Silver	ppm	ASTM D5185m	>2	0	0	
	Aluminum	ppm	ASTM D5185m	>10	2	3	
	Lead	ppm	ASTM D5185m		0	0	
	Copper	ppm	ASTM D5185m		0	0	
	Tin	ppm	ASTM D5185m	>10	<1	1	
	Vanadium	ppm	ASTM D5185m		0	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	6	9	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	<1	<1	
	Fuel		WC Method	>6.0	<1.0	<1.0	
	Water		WC Method	>0.1	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844	>3	0.1	0.2	
	Nitration	Abs/cm	*ASTM D7624	>20	6.3	7.8	
	Sulfation	Abs/.1mm	*ASTM D7415	>30	20.9	21.5	
	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	
	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	
FLUID CONDITION	Codium	nnm	ACTM DE10Em	- 016	2	.4	
T LOID CONDITION	Sodium Boron	ppm	ASTM D5185m ASTM D5185m		2 38	<1 41	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	<1	
	Molybdenum	• • • • • • • • • • • • • • • • • • • •	ASTM D5185m		44	46	
	Manganese	ppm	ASTM D5185m	100	<1	<1	
	Magnesium	ppm	ASTM D5185m	450	573	537	
	Calcium	ppm ppm	ASTM D5185m	3000	1623	1807	
	Phosphorus	ppm	ASTM D5185m		992	802	
	Zinc		ASTM D5185m		1143	938	
	Sulfur	ppm	ASTM D5185m		3529	2966	
	Oxidation	Abs/.1mm	*ASTM D3163111		3529 18.4	21.0	
	Base Number (BN)				9.9	9.5	
	Visc @ 100°C	cSt	ASTM D2090		12.7	13.6	
	VISC @ 100°C	UOL	A3 1 W D445	14.4	12.7	13.0	







Certificate L2367

Laboratory Sample No.

Lab Number : 06226857 Unique Number : 11110350

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : ML0001094

Received **Tested** Diagnosed Test Package : CONST (Additional Tests: TBN)

: 05 Jul 2024

: 02 Jul 2024

: 05 Jul 2024 - Jonathan Hester

PO BOX 600 CHANTILLY, VA US 20153 Contact: SERVICE MANAGER

jimmy\_elswick@wahazel.com T: (703)378-8300

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:

**WILLIAM HAZEL**