WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL



[W/O 10348]
Machine Id
VOLVO L90H 626130

Component Diesel Engine

Fluid CHEVRON 15W40 (5 GAL)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
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.	Sample Number	OOW	Client Info	LIIIIIUADII	ML0000143	,	VCP392760
	Sample Date		Client Info		08 Feb 2024	13 Sep 2023	27 Feb 2023
	Machine Age	hrs	Client Info		1513	1078	476
	Oil Age	hrs	Client Info		435	0	0
	Filter Age	hrs	Client Info		435	0	0
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	SEVERE	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>200	71	73	172
WEAR	Chromium	ppm	ASTM D5185m		2	4	7
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		0	<1	0
	Titanium	ppm	ASTM D5185m		2	<1	0
	Silver	ppm	ASTM D5185m	>2	0	0	0
	Aluminum	ppm	ASTM D5185m		4	4	8
	Lead	ppm	ASTM D5185m		0	<1	<1
	Copper	ppm	ASTM D5185m		2	4	10
	Tin	ppm	ASTM D5185m	>20	0	1	2
	Vanadium	ppm	ASTM D5185m		<1	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	10	22	23
CONTAMINATION	Potassium	ppm	ASTM D5185m		3	2	4
Fuel content negligible. No other contaminants were detected in the oil.	Fuel	%	ASTM D3524		1.1	12.9	<1.0
	Water	, ,	WC Method		NEG	NEG	NEG
	Glycol		WC Method	7 0.2	NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.3	0.3	0.2
	Nitration	Abs/cm	*ASTM D7624	>20	7.4	8.3	8.7
	Sulfation	Abs/.1mm	*ASTM D7415	>30	21.9	21.2	21.4
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m	>50	0	2	4
	Boron	ppm	ASTM D5185m		426	228	93
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	0	3
	Molybdenum	ppm	ASTM D5185m		87	82	81
	Manganese	ppm	ASTM D5185m		<1	2	7
	Magnesium	ppm	ASTM D5185m		388	413	733
	Calcium	ppm	ASTM D5185m		1331	1281	1843
	Phosphorus	ppm	ASTM D5185m		1022	881	1050
	Zinc	ppm	ASTM D5185m		1170	1070	1238
	Sulfur	ppm	ASTM D5185m		3333	3159	4425
	Oxidation	Abs/.1mm	*ASTM D7414	>25	15.8	16.2	18.8
	Base Number (BN)	mg KOH/g	ASTM D2896		7.4	6.4	9.9
	V" 0 40000	- 04	AOTA DA45	444	404	A 44 0	400

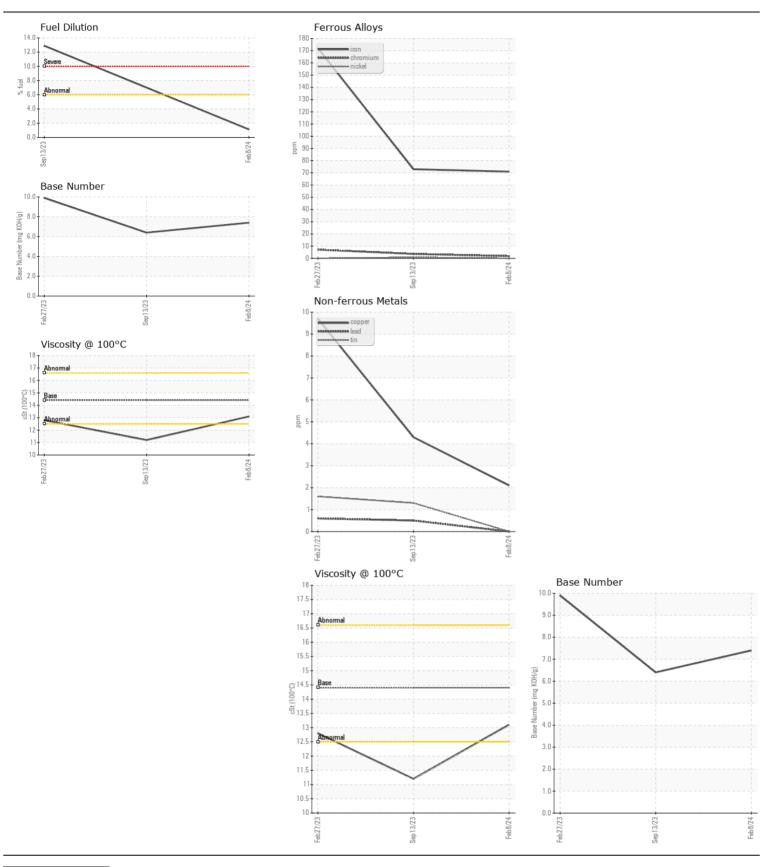
Visc @ 100°C cSt

ASTM D445 14.4

<u>11.2</u>

13.1

12.8







Report Id: VOLVO0150 [WUSCAR] 06086872 (Generated: 02/15/2024 11:02:15) Rev: 1

Laboratory Sample No.

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

: ML0000143 Lab Number : 06086872

Unique Number : 10874317

Received **Tested** Diagnosed

: 14 Feb 2024 Test Package : CONST (Additional Tests: PercentFuel, TBN)

To discuss this sample report, contact Customer Service at 1-800-237-1369.

: 14 Feb 2024 - Sean Felton

: 13 Feb 2024

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* - 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)

Submitted By: DELANO GREGORY