WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL

Area

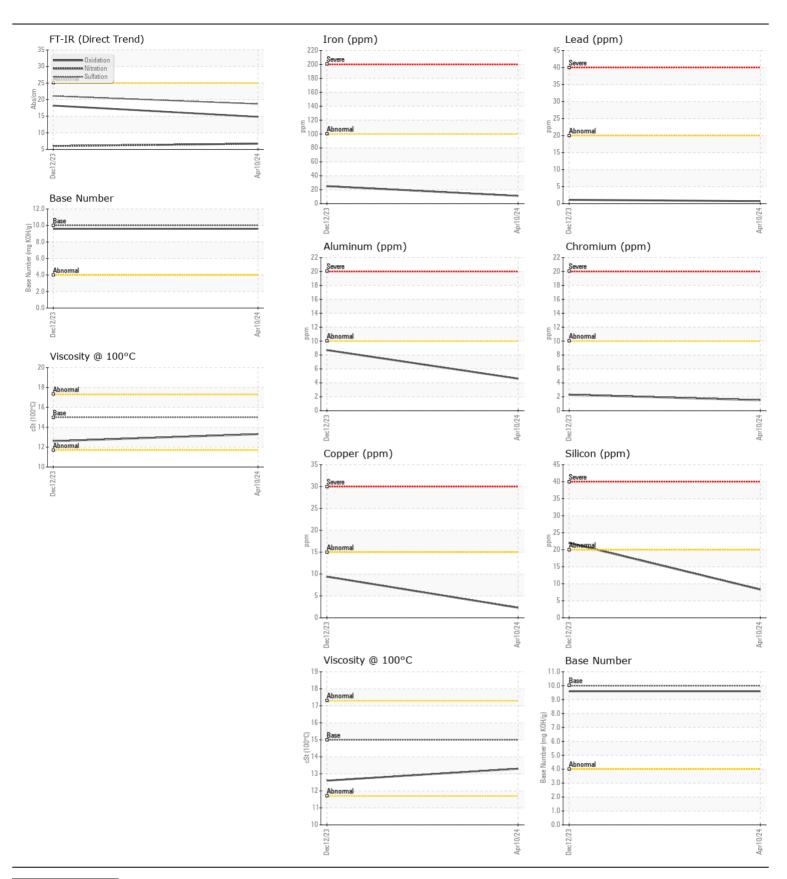
[SWA529317 ATLANTIC]

VOLVO L90H 627083

Diesel Engine

VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

VOLVO ULTRA DIESEL ENGINE OIL 13W40 VDS-3 (GAL)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		VCP438872	VCP431610	,
Resample at the next service interval to monitor.	Sample Date		Client Info		10 Apr 2024	12 Dec 2023	
	Machine Age	hrs	Client Info		1032	458	
	Oil Age	hrs	Client Info		0	0	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR							
WEAR	Iron	ppm	ASTM D5185m		11	25	
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		2	2	
	Nickel	ppm	ASTM D5185m	>10	<1	<1	
	Titanium	ppm	ASTM D5185m		<1	<1	
	Silver	ppm	ASTM D5185m		0	0	
	Aluminum	ppm	ASTM D5185m		5	9	
	Lead	ppm	ASTM D5185m		<1	1	
	Copper	ppm	ASTM D5185m		2	9	
	Tin	ppm	ASTM D5185m	>10	2	2	
	Vanadium	ppm	ASTM D5185m	NONE	<1	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	8	22	
CONTAMINATION	Potassium	ppm	ASTM D5185m		2	4	
There is no indication of any contamination in the oil.	Fuel	ppiii	WC Method		- <1.0	<1.0	
	Water		WC Method		NEG	NEG	
	Glycol		WC Method	7 011	NEG	NEG	
	Soot %	%	*ASTM D7844	>3	0.2	0.2	
	Nitration	Abs/cm	*ASTM D7624	>20	6.7	6.0	
	Sulfation	Abs/.1mm	*ASTM D7415		18.7	21.1	
	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	Sodium	ppm	ASTM D5185m		<1	1	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Boron	ppm	ASTM D5185m		5	53	
	Barium	ppm	ASTM D5185m		0	16	
	Molybdenum	ppm	ASTM D5185m		63	38	
	Manganese	ppm		0.0	1	5	
	Magnesium	ppm	ASTM D5185m		1004	557	
	Calcium	ppm	ASTM D5185m	2057	1259	1555	
	Phosphorus	ppm	ASTM D5185m		1141	923	
	Zinc	ppm	ASTM D5185m		1338	1106	
	Sulfur	ppm Abo/1mm	ASTM D5185m		3639	3505	
	Oxidation	Abs/.1mm	*ASTM D7414		14.8	18.2	
	Base Number (BN)				9.6	9.6	
	Visc @ 100°C	cSt	ASTM D445	15.0	13.3	12.6	







Laboratory Sample No.

Lab Number : 06148355 Unique Number : 10978433

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : VCP438872

Received **Tested**

: 15 Apr 2024 Diagnosed : 17 Apr 2024 - Sean Felton

: 15 Apr 2024

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)

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