



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

[602638 ATLANTIC TRAS]

Machine Id

VOLVO EC140 315666

Component

Diesel Engine

Fluid

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

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP439844	VCP382575	VCP413409
Sample Date		Client Info		11 Jul 2024	12 Dec 2023	20 Sep 2023
Machine Age	hrs	Client Info		1514	849	471
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ATTENTION

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	11	78	19
Chromium	ppm	ASTM D5185m	>10	<1	2	2
Nickel	ppm	ASTM D5185m	>10	<1	1	6
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	5	25	12
Lead	ppm	ASTM D5185m	>20	0	<1	<1
Copper	ppm	ASTM D5185m	>15	9	2	9
Tin	ppm	ASTM D5185m	>10	1	<1	3
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

## CONTAMINATION

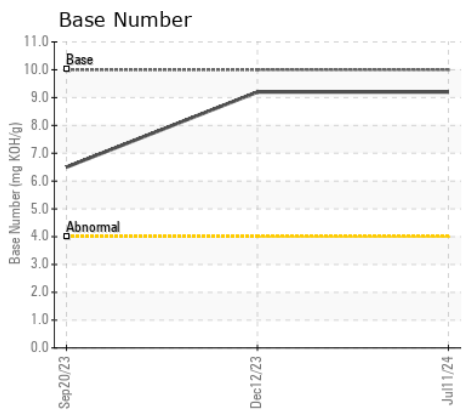
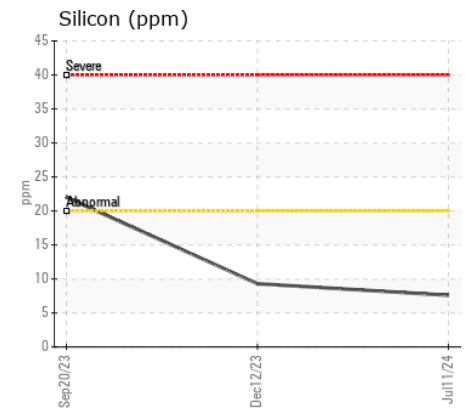
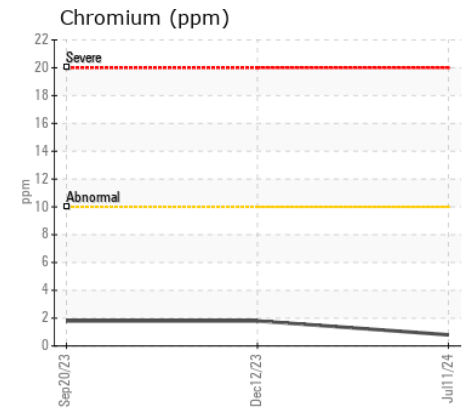
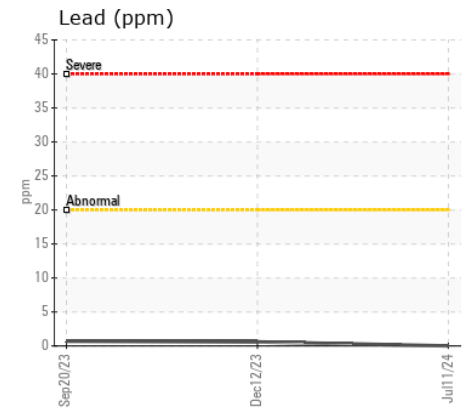
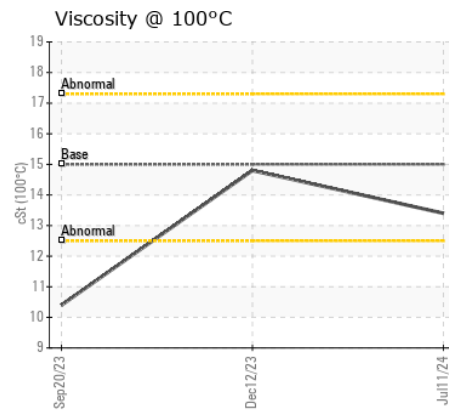
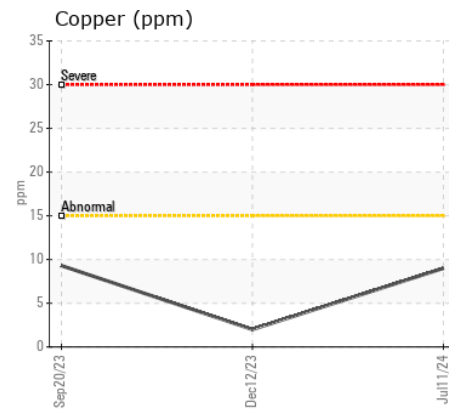
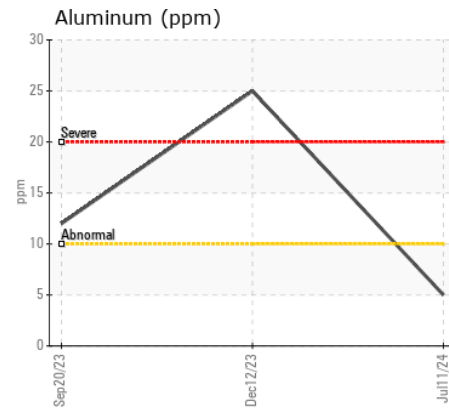
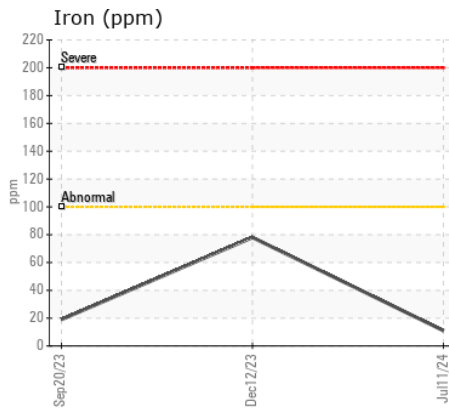
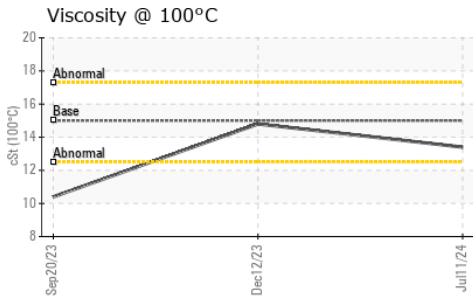
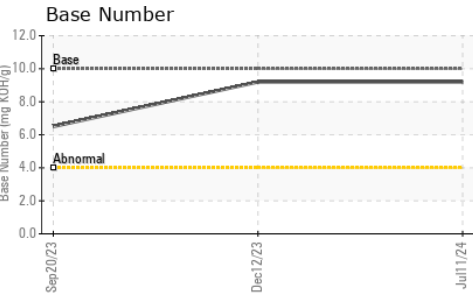
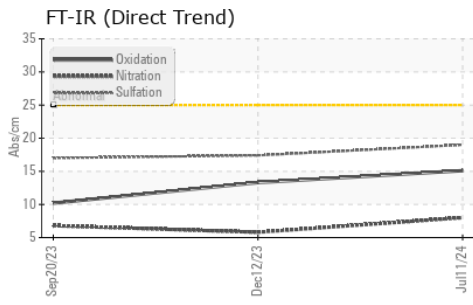
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	8	9	22
Potassium	ppm	ASTM D5185m	>20	2	2	1
Fuel		WC Method	>6.0	<1.0	<1.0	0.3
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	8.0	5.8	6.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.0	17.4	17.0
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	>0.1	NEG	NEG	NEG

## FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		4	<1	3
Boron	ppm	ASTM D5185m	2.5	3	0	22
Barium	ppm	ASTM D5185m	0.0	0	12	0
Molybdenum	ppm	ASTM D5185m	0.7	61	59	6
Manganese	ppm	ASTM D5185m	0.0	2	<1	4
Magnesium	ppm	ASTM D5185m	256	957	930	99
Calcium	ppm	ASTM D5185m	2057	1104	1036	2251
Phosphorus	ppm	ASTM D5185m	935	1052	974	934
Zinc	ppm	ASTM D5185m	1223	1270	1195	1089
Sulfur	ppm	ASTM D5185m	4079	3546	3434	4499
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.1	13.3	10.2
Base Number (BN)	mg KOH/g	ASTM D2896	10	9.2	9.2	6.5
Visc @ 100°C	cSt	ASTM D445	15.0	13.4	14.8	10.4



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP439844 **Received** : 17 Jul 2024  
**Lab Number** : 06238764 **Tested** : 18 Jul 2024  
**Unique Number** : 11127598 **Diagnosed** : 18 Jul 2024 - Sean Felton  
**Test Package** : MOB 1 ( Additional Tests: TBN )

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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)