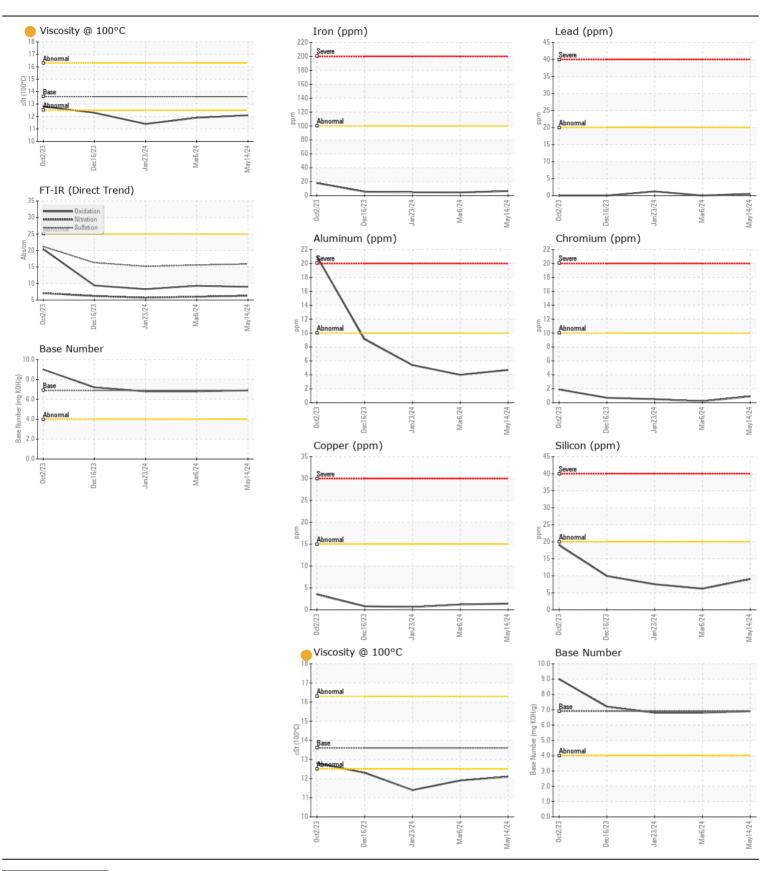


## Wachine Id VOLVO EC250EL 314172

Component Diesel Engine

Diesel Engine VALVOLINE 15W40 ( GAL)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		VCP438767	VCP407112	
The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.	Sample Date		Client Info		14 May 2024	06 Mar 2024	23 Jan 2024
	Machine Age	hrs	Client Info		3232	2973	0
	Oil Age	hrs	Client Info		0	238	0
	Filter Age	hrs	Client Info		0	0	0
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	N/A	N/A
	Sample Status				ATTENTION	ATTENTION	ATTENTION
WEAR	Iron	ppm	ASTM D5185m	>100	6	4	5
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
	Nickel	ppm	ASTM D5185m	>10	<1	0	2
	Titanium	ppm	ASTM D5185m		<1	0	0
	Silver	ppm	ASTM D5185m	>2	1	0	0
	Aluminum	ppm	ASTM D5185m	>10	5	4	5
	Lead	ppm	ASTM D5185m		<1	0	1
	Copper	ppm	ASTM D5185m	>15	1	1	<1
	Tin	ppm	ASTM D5185m	>10	<1	0	<1
	Vanadium	ppm	ASTM D5185m		<1	0	<1
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	9	6	8
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	3	2	5
	Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
	Water		WC Method	>0.1	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.1	0.1	0.1
	Nitration	Abs/cm	*ASTM D7624	>20	6.3	6.0	5.7
	Sulfation	Abs/.1mm	*ASTM D7415	>30	15.9	15.6	15.2
	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	Sodium	ppm	ASTM D5185m		2	<1	1
	Boron	ppm	ASTM D5185m	39	37	42	19
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.	Barium	ppm	ASTM D5185m	1	0	0	0
	Molybdenum	ppm	ASTM D5185m	49	31	38	24
	Manganese	ppm	ASTM D5185m	1	<1	<1	<1
	Magnesium	ppm	ASTM D5185m	616	166	167	111
	Calcium	ppm	ASTM D5185m	1554	1900	1870	1751
	Phosphorus	ppm	ASTM D5185m	899	826	813	830
	Zinc	ppm	ASTM D5185m		960	949	942
	Sulfur	ppm	ASTM D5185m	2624	3725	3451	3644
	Oxidation	Abs/.1mm	*ASTM D7414	>25	9.0	9.3	8.3
	Base Number (BN)	mg KOH/g	ASTM D2896	6.9	6.9	6.8	6.8
	Visc @ 100°C	cSt	ASTM D445	13.6	12.1	11.9	11.4





Laboratory Sample No.

: VCP438767 Lab Number : 06193671 Unique Number : 11050423

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

Received **Tested** Diagnosed

: 29 May 2024 : 30 May 2024

: 30 May 2024 - Sean Felton

221 OLD GATE LN MILFORD, CT US 06460 Contact: TAVINS BANKS

tavins@citycart.net T: (203)223-3885

**CITY CARTING** 

Test Package : MOB 1 ( Additional Tests: TBN ) Certificate L2367 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: