WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL NORMAL

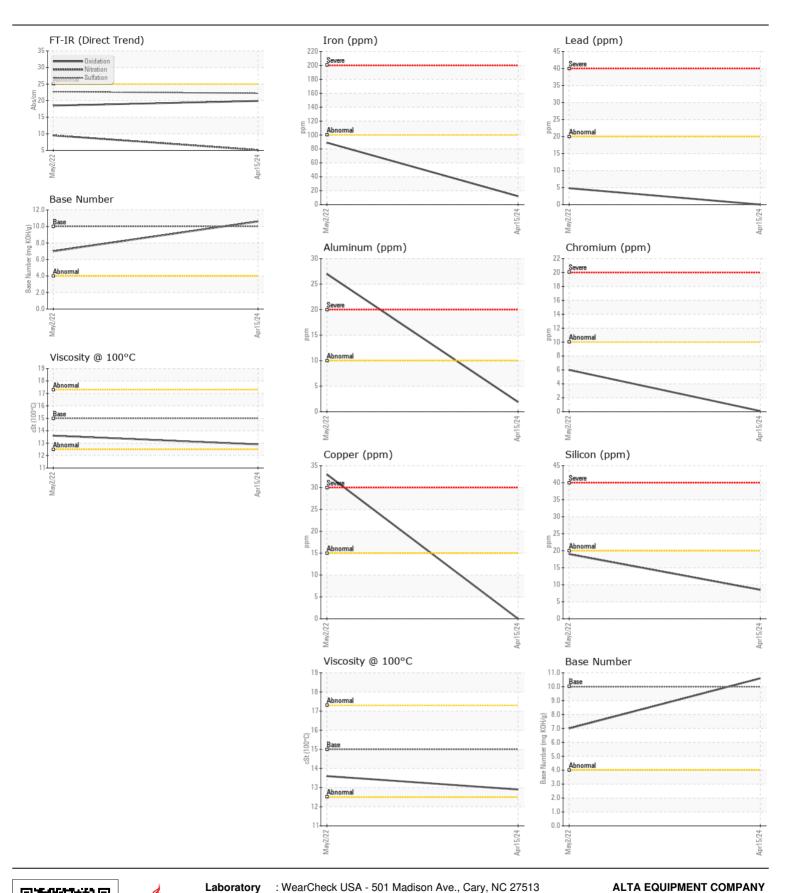


Machine Id VOLVO ECR235E 314041

Diesel Engine

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

VOLVO ULTRA DIESEL ENGINI	_ OIL 10114		, , ,	1 7 -/			
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		VCP0007799	VCP332970	
Resample at the next service interval to monitor.	Sample Date		Client Info		15 Apr 2024	02 May 2022	
	Machine Age	hrs	Client Info		1037	1037	
	Oil Age	hrs	Client Info		1037	500	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		N/A	Changed	
	Filter Changed		Client Info		N/A	Changed	
	Sample Status				NORMAL	ABNORMAL	
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185m	>100	12	89	
	Chromium	ppm	ASTM D5185m		<1	6	
	Nickel	ppm	ASTM D5185m		0	9	
	Titanium	ppm	ASTM D5185m	710	<1	14	
	Silver	ppm	ASTM D5185m	>2	0	0	
	Aluminum	ppm	ASTM D5185m		2	<u>^</u> 27	
	Lead	ppm	ASTM D5185m		0	5	
	Copper	ppm	ASTM D5185m		0	<u>△</u> 33	
	Tin	ppm	ASTM D5185m		<1	5	
	Vanadium	ppm	ASTM D5185m	710	0	<1	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
			v 100aa1				
CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	8	19	
	Potassium	ppm	ASTM D5185m	>20	0	4	
There is no indication of any contamination in the oil.	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	0.3	
	Nitration	Abs/cm	*ASTM D7624	>20	5.1	9.5	
	Sulfation	Abs/.1mm	*ASTM D7415	>30	22.2	22.7	
	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		0	4	
I LOID CONDITION	Boron	ppm	ASTM D5185m	25	85	9	
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	0	0	
	Molybdenum	ppm	ASTM D5185m		39	4	
	Manganese	ppm	ASTM D5185m		0	6	
	Magnesium	ppm	ASTM D5185m		467	121	
	Calcium	ppm	ASTM D5185m		1700	2582	
	Phosphorus	ppm	ASTM D5185m		944	1074	
	Zinc	ppm	ASTM D5185m		1087	1428	
	Sulfur	ppm	ASTM D5185m		3178	3835	
	Oxidation	Abs/.1mm	*ASTM D7414		19.9	18.5	
	Base Number (BN)		ASTM D2896		10.6	7.0	
	Visc @ 100°C	cSt	ASTM D445		12.9	13.6	
	<u> </u>						





Certificate L2367

Laboratory Sample No.

Lab Number : 06151663 Unique Number : 10981741

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : VCP0007799

Received **Tested**

: 17 Apr 2024 Diagnosed Test Package: MOBCE (Additional Tests: TBN)

: 18 Apr 2024

: 18 Apr 2024 - Wes Davis

8750 PHILIPS HWY JACKSONVILLE, FL US 32256 Contact: SHAWN NORTHCRAFT

shawn.northcraft@altg.com T: (904)737-6000

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: (904)737-1260