



## VOLVO EC480EL 311198

Diesel Engine

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

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RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		VCP0007892	VCP312584	VCP318215
	Sample Date		Client Info		24 Apr 2024	20 Nov 2021	05 Aug 2021
	Machine Age	hrs	Client Info		0	4351	3696
	Oil Age	hrs	Client Info		0	0	0
	Filter Age	hrs	Client Info		0	0	0
	Oil Changed		Client Info		N/A	Changed	N/A
	Filter Changed		Client Info		N/A	Changed	Changed
	Sample Status				NORMAL	ATTENTION	NORMAL
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185m	>100	8	6	7
	Chromium	ppm	ASTM D5185m	>10	1	<1	<1
	Nickel	ppm	ASTM D5185m	>10	<1	0	<1
	Titanium	ppm	ASTM D5185m		<1	<1	<1
	Silver	ppm	ASTM D5185m	>2	0	0	0
	Aluminum	ppm	ASTM D5185m	>10	4	<1	0
	Lead	ppm	ASTM D5185m	>20	<1	<1	<1
	Copper	ppm	ASTM D5185m	>15	2	1	2
	Tin	ppm	ASTM D5185m	>10	1	<1	<1
	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	9	8	9
	Potassium	ppm	ASTM D5185m	>20	2	0	<1
There is no indication of any contamination in the oil.	Fuel		WC Method	>6.0	<1.0	0.9	<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	5.4	9.6	8.9
	Sulfation	Abs/.1mm	*ASTM D7415	>30	21.0	21.9	21.8
	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	2
	Boron	ppm	ASTM D5185m	2.5	74	15	24
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	2	0	0
	Molybdenum	ppm	ASTM D5185m	0.7	38	34	60
	Manganese	ppm	ASTM D5185m	0.0	1	<1	<1
	Magnesium	ppm	ASTM D5185m	256	480	433	514
	Calcium	ppm	ASTM D5185m	2057	1755	1792	1720
	Phosphorus	ppm	ASTM D5185m	935	957	900	946
	Zinc	ppm	ASTM D5185m	1223	1125	976	1089
	Sulfur	ppm	ASTM D5185m	4079	3305	2417	2582
	Oxidation	Abs/.1mm	*ASTM D7414	>25	18.4	20.3	20.6
	Base Number (BN)	mg KOH/g	ASTM D2896	10	10.5		
	Vier C 10000	- 01	AOTA DATE	450			10.0

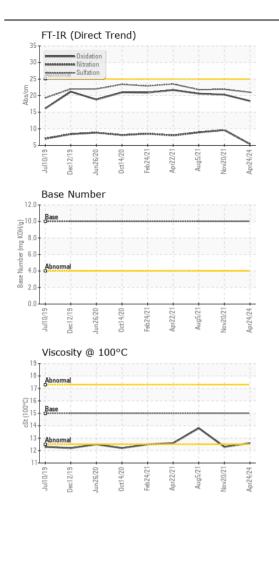
Visc @ 100°C cSt

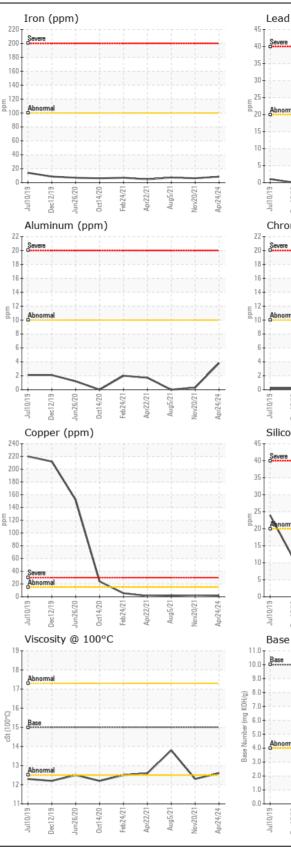
ASTM D445 15.0

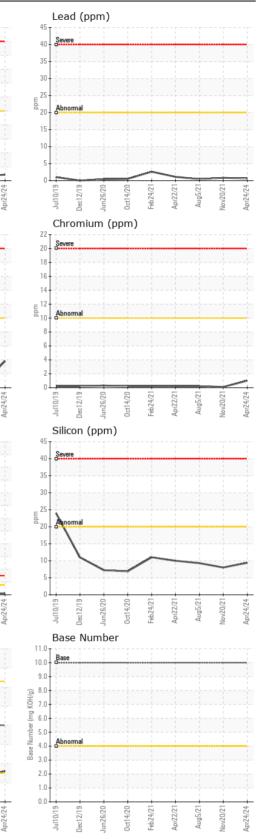
12.3

13.8

12.6







ALTA EQUIPMENT COMPANY Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : VCP0007892 Received 8750 PHILIPS HWY : 26 Apr 2024 Lab Number : 06161292 Tested JACKSONVILLE, FL : 28 Apr 2024 Diagnosed : 28 Apr 2024 - Wes Davis US 32256 Unique Number : 10996715 Test Package : MOBCE ( Additional Tests: TBN ) Contact: SHAWN NORTHCRAFT Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. shawn.northcraft@altg.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (904)737-6000 F: (904)737-1260

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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