

MAUREEN BATTERBERRY [AR] Machine Id VOLVO PENTA 5103958751B

Component Diesel Engine

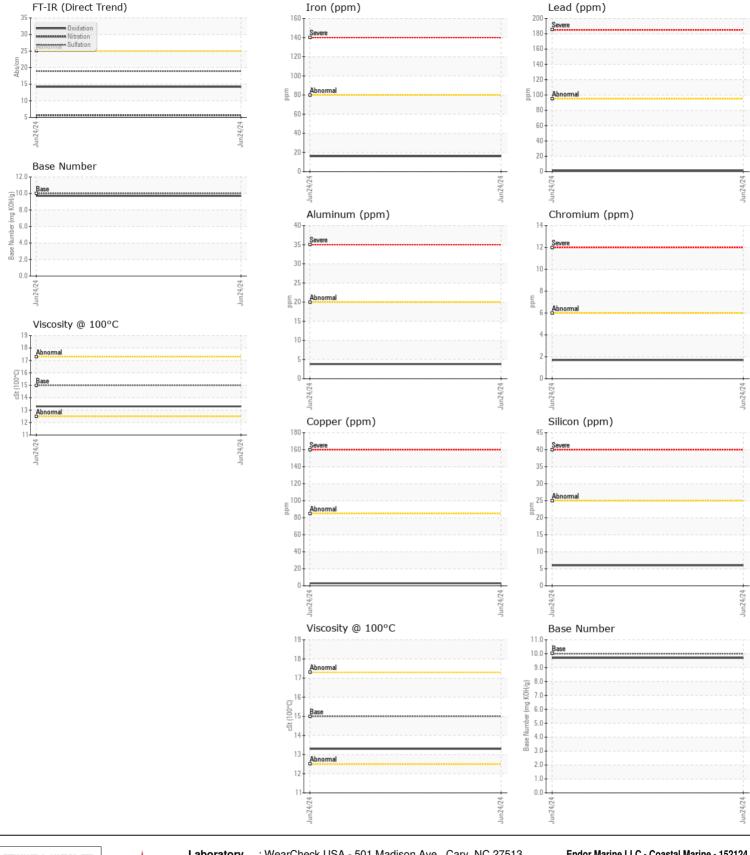
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (3 GAL)

VOLVO ULI RA DIESEL ENGINE OIL 15W40 VL	13-3 (3 GAL	!					
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		VPA061594		
	Sample Date		Client Info		24 Jun 2024		
	Machine Age	hrs	Client Info		509		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		N/A		
	Filter Changed		Client Info		N/A		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185m	>80	16		
	Chromium	ppm	ASTM D5185m	>6	2		
All component wear rates are normal.	Nickel	ppm	ASTM D5185m	>2	<1		
	Titanium	ppm	ASTM D5185m	>2	<1		
	Silver	ppm	ASTM D5185m	>2	<1		
	Aluminum	ppm	ASTM D5185m	>20	4		
	Lead	ppm	ASTM D5185m	>95	1		
	Copper	ppm	ASTM D5185m	>85	3		
	Tin	ppm	ASTM D5185m	>9	<1		
	Vanadium	ppm	ASTM D5185m		<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	6		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	1		
	Fuel		WC Method	>4.0	<1.0		
	Water		WC Method	>0.1	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844		0.1		
	Nitration	Abs/cm	*ASTM D7624	>20	5.6		
	Sulfation	Abs/.1mm	*ASTM D7415		18.9		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
	Appearance	scalar	*Visual	NORML	NORML		
	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.1	NEG		
FLUID CONDITION	Sodium	ppm	ASTM D5185m		4		
	Boron	ppm	ASTM D5185m	2.5	13		
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.	Barium	ppm	ASTM D5185m	0.0	1		
	Molybdenum	ppm	ASTM D5185m	0.7	62		
	Manganese	ppm	ASTM D5185m	0.0	<1		
	Magnesium	ppm	ASTM D5185m	256	1022		
	Calcium	ppm	ASTM D5185m	2057	1071		
	Phosphorus	ppm	ASTM D5185m		957		
	Zinc	ppm	ASTM D5185m		1225		
	Sulfur	ppm	ASTM D5185m		2947		
	Oxidation	Abs/.1mm	*ASTM D7414		14.2		
	Base Number (BN)	mg KOH/g	ASTM D2896	10	9.7		
		0.	AOTH D445				

Visc @ 100°C cSt

13.3

ASTM D445 15.0



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Endor Marine LLC - Coastal Marine - 152124 Sample No. Received 4300 11th Ave. NW : VPA061594 : 28 Jun 2024 Lab Number : 06223078 Tested SEATTLE, WA : 28 Jun 2024 Unique Number : 11101275 Diagnosed : 30 Jun 2024 - Don Baldridge US 98107 Test Package : MOB 1 (Additional Tests: TBN) Contact: WILLOW YANARELLA Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. service@coastalmarineengine.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (206)784-3703 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (206)784-8823