

Machine Id VOLVO PENTA A394746 Component Port Diesel Engine

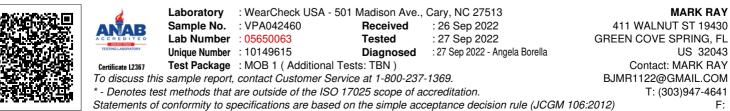
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (13 LTR)

VOLVO ULI RA DIESEL ENGINE OIL 150040 VL	3-3 (13 LIF	<u>y</u>					
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		VPA042460		
	Sample Date		Client Info		20 Sep 2022		
	Machine Age	hrs	Client Info		287		
	Oil Age	hrs	Client Info		10		
	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	4		
WEAR	Chromium	ppm	ASTM D5185m		<1		
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		0		
	Titanium	ppm	ASTM D5185m		0		
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m		5		
	Lead	ppm	ASTM D5185m		0		
	Copper	ppm	ASTM D5185m	>85	1		
	Tin	ppm	ASTM D5185m		<1		
	Vanadium	ppm	ASTM D5185m		0		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION					•		
	Silicon	ppm	ASTM D5185m		6 2		
There is no indication of any contamination in the oil.	Potassium Fuel	ppm	ASTM D5185m WC Method		2 <1.0		
	Water		WC Method		<1.0 NEG		
	Glycol		WC Method	>0.1	NEG		
	Soot %	%	*ASTM D7844		0.1		
	Nitration	Abs/cm	*ASTM D7624	>20	5.7		
	Sulfation	Abs/.1mm	*ASTM D7415		20.3		
	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		ASTM D5185m		3		
	Boron	ppm	ASTM D5185m	25	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 ppm			0		
	Molybdenum	ppm	ASTM D5185m		56		
	Manganese	ppm	ASTM D5185m	0.0	<1		
	Magnesium	ppm	ASTM D5185m		802		
	Calcium	ppm	ASTM D5185m		1162		
	Phosphorus	ppm	ASTM D5185m		928		
	Zinc	ppm	ASTM D5185m		1111		
	Sulfur	ppm	ASTM D5185m		3490		
	Oxidation	Abs/.1mm	*ASTM D7414		15.5		
	Base Number (BN)		ASTM D2896		11.2		
	Vian @ 100%0	oC+		15.0	10.0		

Visc @ 100°C cSt ASTM D445 15.0

13.9





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Contact/Location: MARK RAY - VPMARGRE Page 2 of 2