WEAR CONTAMINATION FLUID CONDITION **NORMAL NORMAL NORMAL**

IAN PORTER [DANIEL/502243]

VOLVO PENTA 2006035538

Component Center Left Diesel Engine

VOLVO III TRA DIESEL ENGINE OIL 15W40 VDS-3 (5 GAL)

VOLVO ULTRA DIESEL ENGINE OIL 15W40 VE							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		VPA059133	VPA037117	
	Sample Date		Client Info		01 Jan 2024	20 Jan 2022	
	Machine Age	hrs	Client Info		1006	0	
	Oil Age	hrs	Client Info		0	0	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		Changed	N/A	
	Filter Changed		Client Info		Changed	N/A	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185m	>80	4	2	
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>6	0	<1	
	Nickel	ppm	ASTM D5185m		<1	0	
	Titanium	ppm	ASTM D5185m	>2	0	<1	
	Silver	ppm	ASTM D5185m		0	0	
	Aluminum	ppm	ASTM D5185m		1	4	
	Lead	ppm	ASTM D5185m		1	<1	
	Copper	ppm	ASTM D5185m		6	1	
	Tin	ppm	ASTM D5185m		<1	<1	
	Vanadium	ppm	ASTM D5185m		0	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	> 25	5	6	
CONTAMINATION	Potassium	ppm	ASTM D5185m		2	<1	
There is no indication of any contamination in the oil.	Fuel	ррпп	WC Method		<1.0	<1.0	
	Water		WC Method		NEG	NEG	
	Glycol		WC Method	>0.1	NEG	NEG	
	Soot %	%	*ASTM D7844		0.1	0.1	
	Nitration	Abs/cm	*ASTM D7624	>20	6.9	6.2	
	Sulfation	Abs/.1mm	*ASTM D7024		19.8	21.2	
	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		*Visual	>0.1	NEG	NEG	
	Linuisinea water	Scalai	Visuai	>0.1		INLG	
FLUID CONDITION	Sodium	ppm	ASTM D5185m		1	2	
	Boron	ppm	ASTM D5185m	2.5	12	51	
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	<1	
	Molybdenum	ppm	ASTM D5185m	0.7	54	40	
	Manganese	ppm	ASTM D5185m	0.0	<1	<1	
	Magnesium	ppm	ASTM D5185m	256	926	599	
	Calcium	ppm	ASTM D5185m	2057	1083	1563	
	Phosphorus	ppm	ASTM D5185m	935	1058	800	
	Zinc	ppm	ASTM D5185m	1223	1238	950	
	Sulfur	ppm	ASTM D5185m	4079	3155	2544	
	Oxidation	Abs/.1mm	*ASTM D7414	>25	15.8	19.6	
	Base Number (BN)	mg KOH/g	ASTM D2896	10	9.5	11.2	
	Visc @ 100°C	cSt	ASTM D445	15.0	13.6	13.9	





Certificate L2367

Report Id: VP794951 [WUSCAR] 06064962 (Generated: 01/22/2024 15:16:51) Rev: 1

Laboratory Sample No. Lab Number

Unique Number

: 06064962 : 10836344

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Recieved : 18 Jan 2024 : VPA059133 Diagnosed : 22 Jan 2024 Diagnostician : Angela Borella

Test Package : MOB 1 (Additional Tests: TBN)

* - 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)

To discuss this sample report, contact Customer Service at 1-800-237-1369.

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