**WEAR** CONTAMINATION **FLUID CONDITION** 

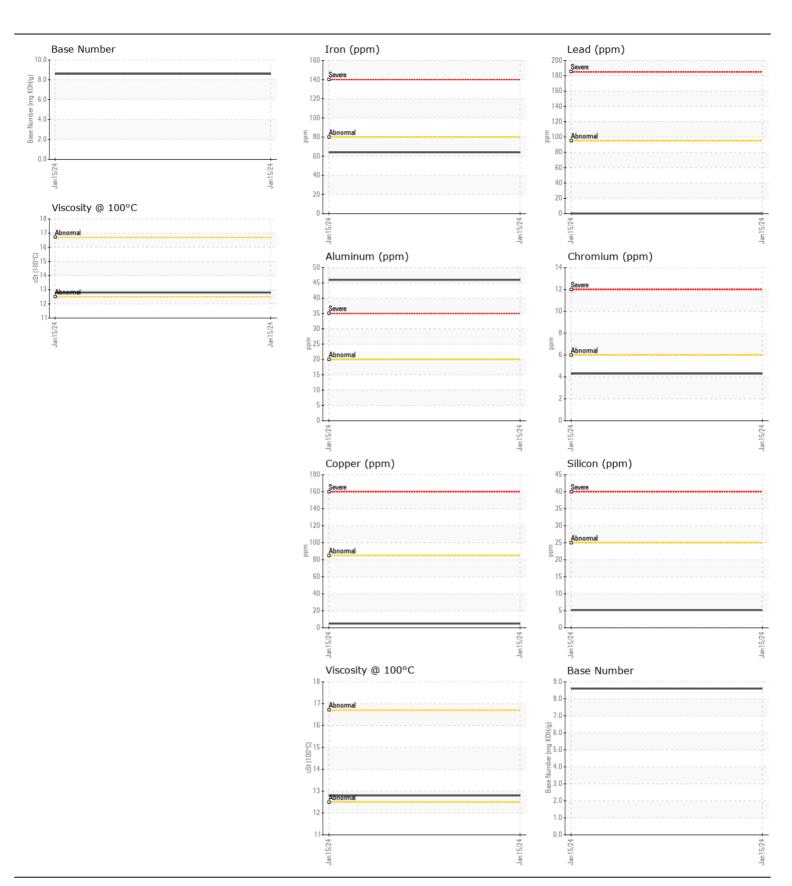
**NORMAL NORMAL** NORMAL

[501676]

## **VOLVO PENTA 5102518851**

Center Diesel Engine

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		VPA059634		
	Sample Date		Client Info		15 Jan 2024		
	Machine Age	hrs	Client Info		296		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Not Changd		
	Filter Changed		Client Info		Not Changd		
	Sample Status				NORMAL		
A/E A D	Lucius .		AOTA DE LOE				
WEAR	Iron	ppm	ASTM D5185m		64		
Metal levels are typical for a new component breaking in.	Chromium	ppm	ASTM D5185m		4		
	Nickel	ppm	ASTM D5185m		0		
	Titanium	ppm	ASTM D5185m		0		
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m		46		
	Lead	ppm	ASTM D5185m ASTM D5185m		0 5		
	Copper Tin	ppm	ASTM D5185m		ี <1		
	Vanadium	ppm	ASTM D5185m	20	<1 <1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
·			Visuai	NONE			
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	5		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	2		
	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	6.1		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	17.4		
	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		31		
LOID GONDITION	Boron	ppm	ASTM D5185m		66		
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		
	Molybdenum	ppm	ASTM D5185m		23		
	Manganese	ppm	ASTM D5185m		<1		
	Magnesium	ppm	ASTM D5185m		774		
	Calcium	ppm	ASTM D5185m		1192		
	Phosphorus	ppm	ASTM D5185m		788		
	Zinc	ppm	ASTM D5185m		947		
	Sulfur	ppm	ASTM D5185m		3004		
	Oxidation	Abs/.1mm	*ASTM D7414	>25	12.7		
	Base Number (BN)				8.6		
		09	ASTM D445				





Certificate L2367

Laboratory Sample No. Lab Number

**Unique Number** 

: 06065467 : 10836849

: VPA059634

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Recieved : 19 Jan 2024 Diagnosed

: 22 Jan 2024 Diagnostician : Sean Felton

Test Package : MOB 1 ( Additional Tests: TBN ) 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)

Endor Marine LLC - Coastal Marine - 152124

4300 11th Ave. NW SEATTLE, WA US 98107

Contact: WILLOW YANARELLA service@coastalmarineengine.com

> T: (206)784-3703 F: (206)784-8823