OIL ANALYSIS REPORT

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

GRANT JENSEN [SAM] Wachine Id VOLVO PENTA 7008494503

Starboard Diesel Engine

VÕLVO PENTA SAE 15W40 (9 GAL)

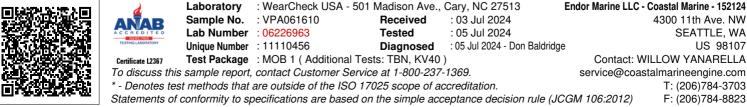
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History	Lioton/2
Resample at the next service interval to monitor.	Sample Number	UOIVI	Client Info	LITTICADI	VPA061610	History1	History2
	Sample Date		Client Info		01 Jul 2024		
	Machine Age	hrs	Client Info		219		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed	1110	Client Info		Not Changd		
	Filter Changed		Client Info		Not Changd		
	Sample Status		Onone into		NORMAL		
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185m	>80	2		
	Chromium	ppm	ASTM D5185m	>6	<1		
	Nickel	ppm	ASTM D5185m	>2	0		
	Titanium	ppm	ASTM D5185m	>2	0		
	Silver	ppm	ASTM D5185m	>2	0		
	Aluminum	ppm	ASTM D5185m	>20	2		
	Lead	ppm	ASTM D5185m	>95	0		
	Copper	ppm	ASTM D5185m	>85	5		
	Tin	ppm	ASTM D5185m	>9	0		
	Vanadium	ppm	ASTM D5185m		0		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
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CONTAMINATION	Silicon	ppm	ASTM D5185m		7		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m		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	4.6		
	Sulfation	Abs/.1mm	*ASTM D7415		17.9		
	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		1		
	Boron		ASTM D5185m		<1		
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		56		
	Manganese	ppm	ASTM D5185m		0		
	Magnesium	ppm	ASTM D5185m		933		
	Calcium	ppm	ASTM D5185m		1022		
	Phosphorus	ppm	ASTM D5185m		1017		
	Zinc	ppm	ASTM D5185m		1205		
	Sulfur	ppm	ASTM D5185m		2907		
	Oxidation	Abs/.1mm	*ASTM D7414	>25	13.1		
	Base Number (BN)			-	10.0		
		- 04			10.0		

Visc @ 100°C cSt

ASTM D445

13.3





Contact/Location: WILLOW YANARELLA - VP794951