

ANDREW CRAFT [EVAN/503249] Machine Id VOLVO PENTA 5102164442A

Center Diesel Engine

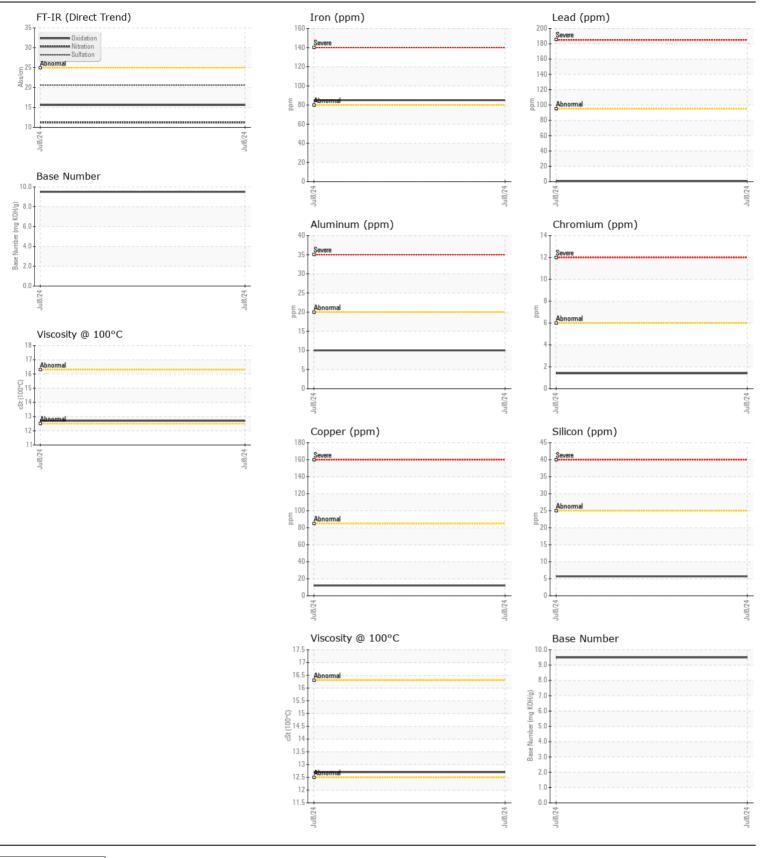
VOLVO PENTA SAE 15W40 (1 GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		VPA062804		
	Sample Date		Client Info		08 Jul 2024		
	Machine Age	hrs	Client Info		318		
	Oil Age	hrs	Client Info		318		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185m	>80	85		
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>6	1		
	Nickel	ppm	ASTM D5185m		<1		
	Titanium	ppm	ASTM D5185m		<1		
	Silver	ppm	ASTM D5185m		0		
	Aluminum		ASTM D5185m		10		
	Lead	ppm	ASTM D5185m		<1		
		ppm	ASTM D5185m		12		
	Copper Tin	ppm	ASTM D5185m				
	Vanadium	ppm		>9	<1 <1		
		ppm	ASTM D5185m				
	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	4		
	Fuel		WC Method	>4.0	<1.0		
	Water		WC Method	>0.1	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844		1.2		
	Nitration	Abs/cm	*ASTM D7624	>20	11.2		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	20.6		
	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		ASTM D5185m		135		
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		1		
		ppm	ASTM D5185m		10		
	Molybdenum	ppm	ASTM D5185m				
	Manganese	ppm			4		
	Magnesium	ppm	ASTM D5185m		572		
	Calcium	ppm	ASTM D5185m		1861		
	Phosphorus	ppm	ASTM D5185m		797		
	Zinc	ppm	ASTM D5185m		947		
	Sulfur	ppm	ASTM D5185m	0.5	3613		
	Oxidation	Abs/.1mm	*ASTM D7414	>25	15.6		
	Base Number (BN)	mg KOH/g	ASTM D2896		9.5		

Visc @ 100°C cSt

ASTM D445

12.7



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Endor Marine LLC - Coastal Marine - 152124 Sample No. Received 4300 11th Ave. NW : VPA062804 : 12 Jul 2024 Lab Number : 06234555 Tested SEATTLE, WA : 12 Jul 2024 Unique Number : 11123389 : 15 Jul 2024 - Don Baldridge US 98107 Diagnosed 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