OIL ANALYSIS REPORT

PETER HUYSING PATRICK/502357-5250 VOLVO PENTA A 1133474 - PORT DIESEL ENGINE

Sample No: VPA060401

Oil Type: VOLVO VDS-4.5 Premium Motor Oil 15W40

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Sample Number		VPA060401	VPA043131	
Sample Date		11 Sep 2023	28 Sep 2022	
Machine Hours		139	90	
Oil Hours		49	90	
Oil Changed		Changed	Changed	
Sample Status		NORMAL	NORMAL	
OIL CONDITION				
Visc @ 100°C	cSt	13.4	13.2	
Base Number (BN)	mg KOH/g	9.9	10.8	
Oxidation (PA)	%	55	69	
CONTAMINATION				
Soot %	%	0.1	0.2	
Nitration (PA)	%	40	49	
Sulfation (PA)	%	52	65	
Glycol	%	NEG	NEG	
Fuel	%	<1.0	<1.0	
Silicon	ppm	9	20	
Sodium	ppm	2	3	
Potassium	ppm	_ _<1	<1	
WEAR METALS	ppm	1 1	12	
Copper	ppm	5	9	
Lead	ppm	 <1	3	
Tin	ppm	 <1	2	
Aluminum	ppm	1 4	19	
Chromium	ppm	 <1	1	
Molybdenum	ppm	73	90	
Nickel	ppm		2	
Titanium	ppm	 <1	 < 1	
Silver	ppm	0	0	
Manganese	ppm	 <1	1	
ivialiganese	ppm	0	<1	
Vanadium				
Vanadium	ppm	1275	1397	
Vanadium ADDITIVES	ppm ppm	■ 1275 1026	□ 1397 □ 625	
Vanadium ADDITIVES Calcium				
Vanadium ADDITIVES Calcium Magnesium	ppm	1026	625	
Vanadium ADDITIVES Calcium Magnesium Zinc	ppm ppm	1026 1258	■ 625 860	

VOLVO PENTA

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

Diagnosis

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

 Depot:
 VP794951

 Unique No:
 10648342

 Signed:
 Sean Felton

 Report Date:
 19 Sep 2023

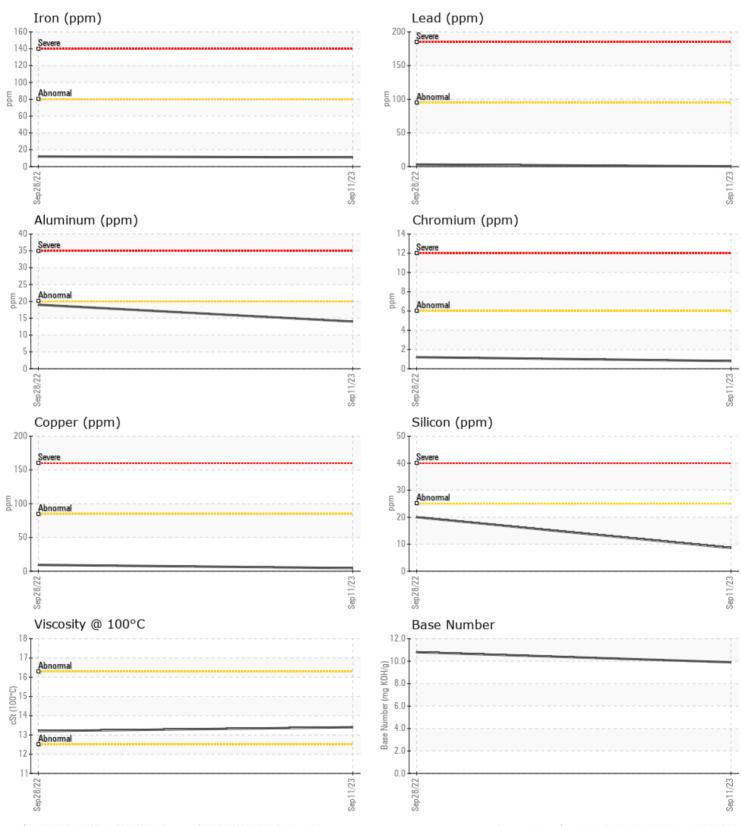
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Contact/Location: WILLOW YANARELLA - VP794951

OIL ANALYSIS REPORT



GRAPHS



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Contact/Location: WILLOW YANARELLA - VP794951