



## MICHAEL FIORE DANIEL/502250 VOLVO PENTA 2006012630 - CENTER DIESEL ENGINE

Sample No: VPA036895

Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

SAMPLE INFORMAT	TION			
Sample Number		VPA036895	VPA047442	 
Sample Date		23 Aug 2023	13 Feb 2023	 
Machine Hours		749	707	 
Oil Hours				
		0	0	 
Oil Changed		Not Changd	N/A	 
Sample Status		NORMAL	NORMAL	 
OIL CONDITION				
Visc @ 100°C	cSt	<b>13.5</b>	■13.7	 
Base Number (BN)	mg KOH/g	■9.4	■10.0	 
Oxidation (PA)	%	54	63	 
CONTAMINATION				
Soot %	%	<b>□</b> 0.1	□ 0.2	 
Nitration (PA)	%	57	59	 
` ,	%	49	56	 
Sulfation (PA)				
Glycol	%	NEG	NEG	 
Fuel	%	<1.0	<1.0	 
Silicon	ppm	■3	<b>4</b>	 
Sodium	ppm	■2	1	 
Potassium	ppm	■0	<b>0</b>	 
WEAR METALS				
Iron	ppm	<b>4</b>	<b>5</b>	 
Copper	ppm	<b>■</b> 3	<b>5</b>	 
Lead	ppm	<b>■</b> 5	<b>8</b>	 
Tin	ppm	<b>■&lt;1</b>	<b>-</b> <1	 
Aluminum	ppm	<b>■&lt;1</b>	<b>2</b>	 
Chromium	ppm	0	<1	 
Molybdenum		<b>■</b> 61	□62	 
Nickel	ppm	_		
	ppm	<b>■</b> <1	□ < 1 □ < 1	
Titanium	ppm	<b>■</b> 0	<b>0</b>	 
Silver	ppm	<b>0</b>	0	 
Manganese	ppm	■0	<b>-</b> <1	 
Vanadium	ppm	<1	0	 
ADDITIVES				
Calcium	ppm	<b>1180</b>	■1085	 
Magnesium	ppm	<b>1055</b>	□947	 
Zinc	ppm	<b>1336</b>	<b>1263</b>	 
Phosphorus	ppm	<b>1097</b>	<b>1</b> 035	 
Barium	ppm	■0	<b>0</b>	 
Boron	ppm	■0	2	 
	1-1			

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 acceptable for the time in service.

Depot:VP794951Unique No:10619882Signed:Sean FeltonReport Date:28 Aug 2023

## **OIL ANALYSIS REPORT**



