### **OIL ANALYSIS REPORT**

### JAEWOOK CHUNG DANIEL/502462 VOLVO PENTA 2006041158 - STARBOARD DIESEL ENGINE

Sample No: VPA059357

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

Consula N. J		VD4050257				
Sample Number		VPA059357				Endor Marine LLC - Coastal Marine - 15212
Sample Date		31 Oct 2023				4300 11th Ave. NW
Machine Hours		469				SEATTLE, WA
Oil Hours		469				US 98107
Oil Changed		Changed				Contact: WILLOW YANARELLA
Sample Status		NORMAL				service@coastalmarineengine.com
OIL CONDITION						T: (206)784-3703 F: (206)784-8823
Visc @ 100°C	cSt	14.5				F. (200)784-8823
Base Number (BN)	mg KOH/g	7.8				
Oxidation (PA)	%	65				Diagnosis
						Resample at the next service interval
CONTAMINATION						to monitor.All component wear rate
						are normal. There is no indication of
Soot %	%	0.1				any contamination in the oil. The BN
Nitration (PA)	%	51				result indicates that there is suitable
Sulfation (PA)	%	55				alkalinity remaining in the oil. The
Glycol	%	NEG				condition of the oil is suitable for further service.
Fuel	%	<1.0				Turther service.
Silicon	ppm	5				
Sodium	ppm	3				
Potassium	ppm	2				
WEAR METALS						
Iron	ppm	5				
Copper	ppm	2				
Lead	ppm	■<1				
Tin	ppm	0				
Aluminum	ppm	1				
Chromium	ppm	_ _<1				
	ppm					
Molvbdenum		18				
Molybdenum Nickel		■18 ■0				
Nickel	ppm	0				
Nickel Titanium	ppm ppm	0 <1				
Nickel Titanium Silver	ppm ppm ppm	□0 □<1 □0				
Nickel Titanium Silver Manganese	ppm ppm ppm ppm	0 <1			  1	
Nickel Titanium Silver Manganese Vanadium	ppm ppm ppm	0 <1 0 <1		  	  	
Nickel Titanium Silver Manganese Vanadium ADDITIVES	ppm ppm ppm ppm ppm	0 <1 0 <1 <1 <1				
Nickel Titanium Silver Manganese Vanadium ADDITIVES Calcium	ppm ppm ppm ppm ppm	0 <1 0 <1 <1 <1 1 846				
Nickel Titanium Silver Manganese Vanadium ADDITIVES Calcium Magnesium	ppm ppm ppm ppm ppm ppm	0 <1 0 <1 <1 <1 1 846 225				
Nickel Titanium Silver Manganese Vanadium ADDITIVES Calcium Magnesium Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	0 <1 0 <1 <1 <1 225 1249				
Nickel Titanium Silver Manganese Vanadium ADDITIVES Calcium Magnesium Zinc Phosphorus	ppm ppm ppm ppm ppm ppm ppm ppm ppm	0 <1 0 <1 <1 <1 225 1249 981				
Nickel Titanium Silver Manganese Vanadium	ppm ppm ppm ppm ppm ppm ppm ppm	0 <1 0 <1 <1 <1 225 1249				

### nosis

VP794951 Unique No: 10726069 Don Baldridge Signed: Report Date: 06 Nov 2023

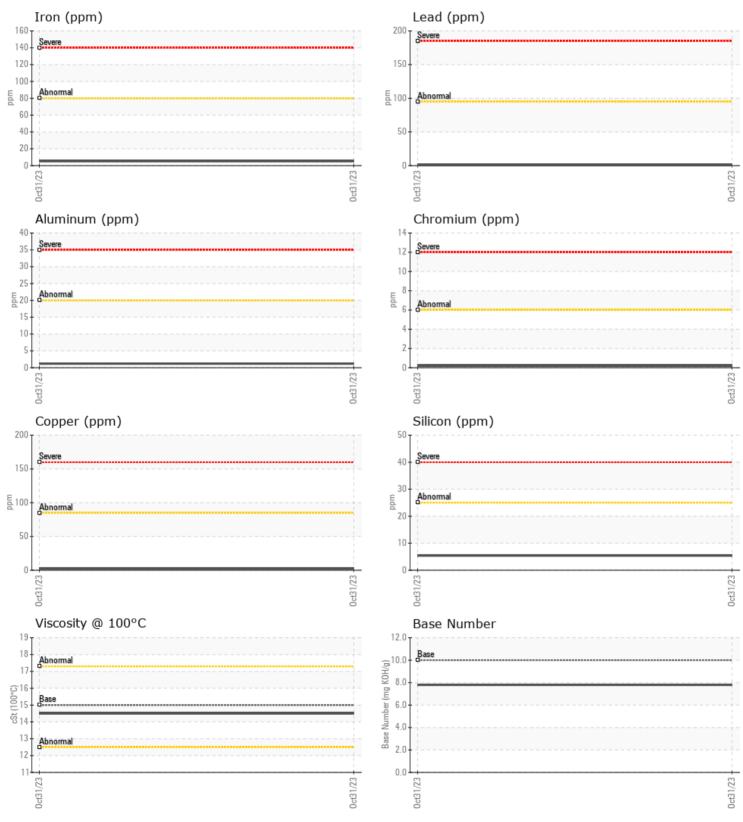
Contact/Location: WILLOW YANARELLA - VP794951

# VOLVO PENTA

## **OIL ANALYSIS REPORT**



#### GRAPHS



Report Id: VP794951 [WUSCAR] 05997709 (Generated: 11/07/2023 10:22:04) Rev: 1

Contact/Location: WILLOW YANARELLA - VP794951