OIL ANALYSIS REPORT

FANCY VOLVO PENTA 2013524813 - STARBOARD DIESEL ENGINE

Sample No: VPA051114

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

Sample Number		VPA051114	VPA028928	
Sample Date		13 Mar 2024	02 Apr 2021	
Machine Hours		877	0	
Oil Hours		0	0	
Oil Changed		N/A	N/A	
Sample Status		NORMAL	NORMAL	
OIL CONDITION				
Visc @ 100°C	cSt	13.2	13.2	
Base Number (BN)	mg KOH/g	9.1		
Oxidation (PA)	%	55	57	
CONTAMINATION				
Water	%	NEG	NEG	
Soot %	%	0.5	0.1	
Nitration (PA)	%	52	43	
Sulfation (PA)	%	54	55	
Glycol	%	NEG	NEG	
Fuel	%	<1.0	<1.0	
Silicon	ppm		3	
Sodium	ppm	1 9	<1	
Potassium	ppm	2	2	
WEAR METALS			- 1	
Iron	ppm	23	6	
Copper	ppm	6	□ <1	
Lead	ppm	0	□ <1	
Tin	ppm	0	□ <1	
Aluminum	ppm	2	8	
Chromium	ppm	■ <1	□ <1	
Molybdenum	ppm	55	56	
Nickel	ppm	0	□ <1	
Titanium	ppm	■ <1	<1	
Silver	ppm	0	□ <1	
Manganese Vanadium	ppm	■<1 <1	□ <1 0	
vandulum	ppm	<1	U	
ADDITIVES				
Calcium	ppm	1193	1004	
Magnesium	ppm	928	888	
Zinc	ppm	1320	1210	
Phosphorus	ppm	1109	999	
Barium	ppm	0	0	
Boron	ppm	9	4	

Marine International Diesels Inc. 3600 HACIENDA BLVD UNIT G

DAVIE, FL US 33314 Contact: ASHANTI BURKE aburke@midiflorida.com T: (954)761-1086 F: (954)761-1186

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:
 VP694356

 Unique No:
 10937044

 Signed:
 Jonathan Hester

 Report Date:
 22 Mar 2024

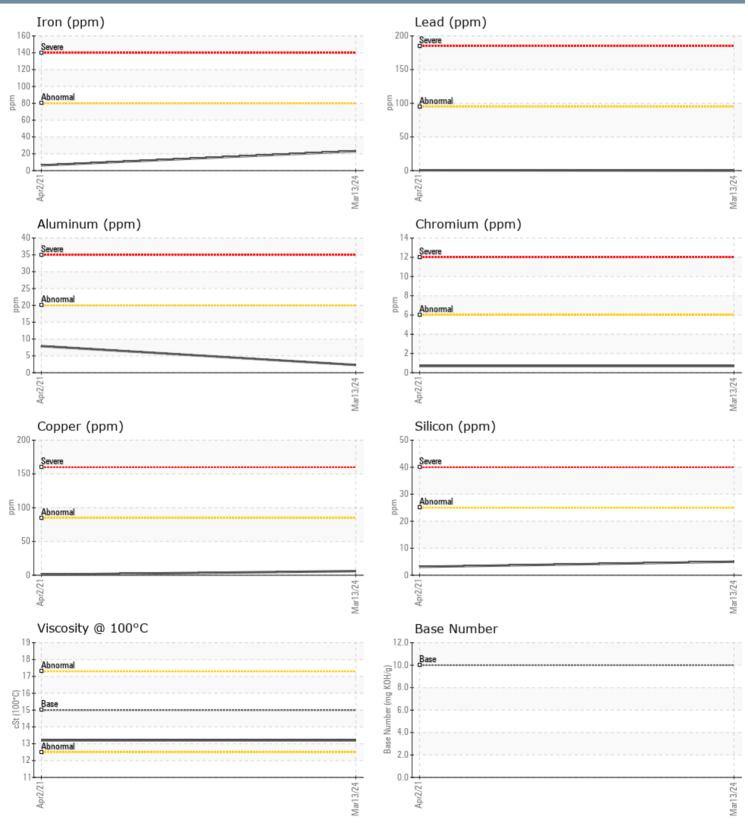
Contact/Location: ASHANTI BURKE - VP694356



OIL ANALYSIS REPORT



GRAPHS



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Contact/Location: ASHANTI BURKE - VP694356