



BRIAN 7011484915 - STARBOARD DIESEL ENGINE

Sample No: VPA055861

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

SAMPLE INFORMAT	TION			
Sample Number		VPA055861	 	
Sample Date		20 Mar 2024	 	
Machine Hours		812	 	
Oil Hours		194	 	
Oil Changed		Changed	 	
Sample Status		ATTENTION	 	
		711121111011	 	
OIL CONDITION				
Visc @ 100°C	cSt	12.1	 	
Base Number (BN)	mg KOH/g	■9.4	 	
Oxidation (PA)	%	58	 	
CONTAMINATION				
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Water	%	NEG	 	
Soot %	%	■ 0.3	 	
Nitration (PA)	%	53	 	
Sulfation (PA)	%	53	 	
Glycol	%	NEG	 	
Fuel	%	<u> </u>	 	
Silicon	ppm	10	 	
Sodium	ppm	■3	 	
Potassium	ppm	■ 3	 	
WEAR METALS				
Iron	ppm	<u> </u>	 	
Copper	ppm	■26	 	
Lead	ppm	■ 16	 	
Tin	ppm	1	 	
Aluminum	ppm	<u> </u>	 	
Chromium	ppm	 <1	 	
Molybdenum	ppm	■ 59	 	
Nickel	ppm	1	 	
Titanium	ppm	0	 	
Silver	ppm	■0	 	
Manganese	ppm	1	 	
Vanadium	ppm	0	 	
ADDITIVES				
Calcium	nnm	1047	 	
Magnesium	ppm	■ 1047	 	
Zinc		■ 937 ■ 1244	 	
Phosphorus	ppm	■ 1244 ■ 1076	 	
Barium	ppm ppm	0	 	
Boron	ppm	2	 	
DOIOII	ppiii		 	

ROBERT G. TUFTS

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Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. Light fuel dilution occurring. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Depot:VPROBJUPUnique No:10943212Signed:Jonathan HesterReport Date:02 Apr 2024

OIL ANALYSIS REPORT



