

OIL ANALYSIS REPORT



NADINE URUIOLI SILVER SEAS VOLVO PENTA D6-435D-F A752806 - PORT DIESEL ENGINE

Sample No: VPA058333
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

SAMPLE INFORMATION

Sample Number	VPA058333	VPA034584	VPA019339	VPA027734
Sample Date	14 Mar 2024	28 Oct 2020	04 Jun 2020	05 Sep 2019
Machine Hours	551	356	282	236
Oil Hours	551	0	47	0
Oil Changed	Not Changd	Not Changd	Not Changd	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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 619 Canal Street
 SAN RAFAEL, CA
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 SERVICE@HELMUTSMARINE.COM
 T: x:
 F: x:

OIL CONDITION

Visc @ 100°C	cSt	13.8	13.6	13.9	14.2
Base Number (BN)	mg KOH/g	8.7	---	---	---
Oxidation (PA)	%	49	61	59	57

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.2	0.2	0.5
Nitration (PA)	%	57	58	48	69
Sulfation (PA)	%	48	56	55	50
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	6	8	22
Sodium	ppm	3	3	2	8
Potassium	ppm	3	0	0	3

Diagnosis

No corrective action is recommended at this time. 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.

WEAR METALS

Iron	ppm	10	15	8	33
Copper	ppm	3	10	6	26
Lead	ppm	<1	<1	0	4
Tin	ppm	<1	0	0	3
Aluminum	ppm	2	3	2	9
Chromium	ppm	<1	<1	<1	2
Molybdenum	ppm	8	60	50	48
Nickel	ppm	1	3	2	4
Titanium	ppm	<1	<1	<1	5
Silver	ppm	0	0	0	<1
Manganese	ppm	<1	<1	<1	2
Vanadium	ppm	<1	0	0	<1

ADDITIVES

Calcium	ppm	1246	1255	1122	2238
Magnesium	ppm	716	1015	882	588
Zinc	ppm	823	1176	1101	1314
Phosphorus	ppm	721	1093	932	1154
Barium	ppm	0	0	0	1
Boron	ppm	76	3	7	50

Depot: VP152741
Unique No: 10937592
Signed: Doug Bogart
Report Date: 21 Mar 2024

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VOLVO PENTA

GRAPHS

