

OIL ANALYSIS REPORT



NADINE URUIOLI DAN CHERRY VOLVO 8.1 GI-H 4012199546 - CENTER GASOLINE ENGINE

Sample No: VPA051970

Oil Type: VOLVO ULTRA DIESEL ENGINE OIL SAE 10W30

SAMPLE INFORMATION

Sample Number	VPA051970	VPA040293	VPA023925	VPA019795
Sample Date	21 Nov 2023	30 Jun 2022	06 Jul 2021	18 Jun 2020
Machine Hours	412	380	362	323
Oil Hours	412	380	30	0
Oil Changed	Changed	Not Changd	Not Changd	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

Helmut's Marine Service

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T: x:

F: x:

OIL CONDITION

Visc @ 100°C	cSt	14.9	14.9	14.8	13.6
Base Number (BN)	mg KOH/g	6.8	7.4	---	---
Oxidation (PA)	%	9	9	10	9

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0	0	0.1	0.1
Nitration (PA)	%	7	7	8	6
Sulfation (PA)	%	11	10	12	10
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	5	7	7
Sodium	ppm	4	4	10	3
Potassium	ppm	0	2	1	0

Diagnosis

Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. 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	25	11	16	10
Copper	ppm	45	38	30	11
Lead	ppm	<1	2	<1	0
Tin	ppm	0	<1	<1	0
Aluminum	ppm	1	<1	0	2
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	40	41	39	35
Nickel	ppm	0	<1	<1	<1
Titanium	ppm	0	0	<1	<1
Silver	ppm	0	2	<1	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	1827	1819	1744	1744
Magnesium	ppm	29	21	45	164
Zinc	ppm	944	849	769	797
Phosphorus	ppm	746	691	676	731
Barium	ppm	0	0	0	0
Boron	ppm	1	2	4	2

Depot: VP152741

Unique No: 10767917

Signed: Sean Felton

Report Date: 05 Dec 2023

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VOLVO PENTA

GRAPHS

