

OIL ANALYSIS REPORT

VOLVO PENTA

VOLVO PENTA A447862 - PORT DIESEL ENGINE

Sample No: VPA058268

Oil Type: CHEVRON DELO 400 MULTIGRADE 15W40

SAMPLE INFORMATION

Sample Number	VPA058268	VPA048025	VPA257735	---
Sample Date	20 Nov 2023	18 Oct 2022	27 Aug 2020	---
Machine Hours	581	453	324	---
Oil Hours	120	37	0	---
Oil Changed	Changed	Not Changd	N/A	---
Sample Status	NORMAL	NORMAL	NORMAL	---

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OIL CONDITION

Visc @ 100°C	cSt	13.2	13.4	13.3	---
Base Number (BN)	mg KOH/g	9.6	11.4	---	---
Oxidation (PA)	%	59	60	56	---

CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	0.4	0.2	0.2	---
Nitration (PA)	%	57	48	45	---
Sulfation (PA)	%	55	56	53	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	6	5	5	---
Sodium	ppm	2	<1	4	---
Potassium	ppm	1	0	<1	---

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 acceptable for the time in service.

WEAR METALS

Iron	ppm	19	4	10	---
Copper	ppm	5	1	2	---
Lead	ppm	1	0	<1	---
Tin	ppm	<1	0	<1	---
Aluminum	ppm	2	0	0	---
Chromium	ppm	<1	<1	<1	---
Molybdenum	ppm	60	56	50	---
Nickel	ppm	1	<1	<1	---
Titanium	ppm	0	0	0	---
Silver	ppm	0	0	<1	---
Manganese	ppm	<1	<1	<1	---
Vanadium	ppm	0	<1	0	---

ADDITIVES

Calcium	ppm	1042	1063	1069	---
Magnesium	ppm	1007	954	763	---
Zinc	ppm	1299	1250	1049	---
Phosphorus	ppm	967	966	941	---
Barium	ppm	0	0	0	---
Boron	ppm	<1	0	4	---

Depot: VP179089
Unique No: 10762475
Signed: Don Baldrige
Report Date: 29 Nov 2023

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GRAPHS

