

OIL ANALYSIS REPORT

VOLVO PENTA

BRUCE CLEGG VOLVO D4-300I-F A914124 - DIESEL ENGINE

Sample No: VPA060566

Oil Type: VOLVO PENTA SAE 15W40

SAMPLE INFORMATION

Sample Number	VPA060566	VPA023569	VPA023484	---
Sample Date	19 Oct 2023	05 May 2020	01 Oct 2018	---
Machine Hours	665	373	96	---
Oil Hours	0	200	96	---
Oil Changed	Not Changed	Changed	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

Northwest Diesel Power

1325 ROEDER AVE SUITE 103
BELLINGHAM, WA
US 98225

Contact: BRANDON ROBERTSON
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F:

OIL CONDITION

Visc @ 100°C	cSt	█ 13.4	█ 13.6	---	---
Base Number (BN)	mg KOH/g	█ 9.8	---	---	---
Oxidation (PA)	%	55	---	---	---

CONTAMINATION

Soot %	%	█ 0.9	---	---	---
Nitration (PA)	%	55	---	---	---
Sulfation (PA)	%	54	---	---	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	█ 5	█ 8	█ 28	---
Sodium	ppm	█ 2	█ 2	█ 3	---
Potassium	ppm	█ 3	█ 0	█ 13	---

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.

WEAR METALS

Iron	ppm	█ 23	█ 30	█ 14	---
Copper	ppm	█ 8	█ 10	█ 11	---
Lead	ppm	█ 1	█ 3	█ 5	---
Tin	ppm	█ <1	█ 0	█ 0	---
Aluminum	ppm	█ 2	█ 3	█ 3	---
Chromium	ppm	█ <1	█ 2	█ 1	---
Molybdenum	ppm	█ 61	█ 61	█ 49	---
Nickel	ppm	█ 2	█ 2	█ <1	---
Titanium	ppm	█ 0	█ <1	█ <1	---
Silver	ppm	█ 0	█ 0	█ <1	---
Manganese	ppm	█ <1	█ <1	1	---
Vanadium	ppm	0	0	0	---

ADDITIVES

Calcium	ppm	█ 1048	█ 1135	█ 1162	---
Magnesium	ppm	1016	1097	█ 1043	---
Zinc	ppm	█ 1303	█ 1191	█ 1353	---
Phosphorus	ppm	█ 1071	█ 1027	█ 1221	---
Barium	ppm	█ 0	█ 0	█ <1	---
Boron	ppm	█ 2	█ 4	█ 9	---

Depot: VP759009

Unique No: 10709782

Signed: Jonathan Hester

Report Date: 25 Oct 2023

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GRAPHS

