

OIL ANALYSIS REPORT

**VOLVO
PENTA**

CATERPILLAR RPM00173 - STARBOARD DIESEL ENGINE

Sample No: VPA060383

Oil Type: CAT DIESEL ENGINE OIL 15W40

SAMPLE INFORMATION

Sample Number	VPA060383	---	---	---
Sample Date	13 Oct 2023	---	---	---
Machine Hours	161	---	---	---
Oil Hours	161	---	---	---
Oil Changed	Not Changd	---	---	---
Sample Status	ATTENTION	---	---	---

OIL CONDITION

Visc @ 100°C	cSt	█ 12.5	---	---	---
Base Number (BN)	mg KOH/g	█ 9.0	---	---	---
Oxidation (PA)	%	79	---	---	---

CONTAMINATION

Soot %	%	█ 0.2	---	---	---
Nitration (PA)	%	57	---	---	---
Sulfation (PA)	%	58	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	▲ 45	---	---	---
Sodium	ppm	█ 13	---	---	---
Potassium	ppm	█ 2	---	---	---

WEAR METALS

Iron	ppm	█ 32	---	---	---
Copper	ppm	█ 98	---	---	---
Lead	ppm	█ 3	---	---	---
Tin	ppm	█ 2	---	---	---
Aluminum	ppm	█ 29	---	---	---
Chromium	ppm	█ 4	---	---	---
Molybdenum	ppm	█ 40	---	---	---
Nickel	ppm	█ 0	---	---	---
Titanium	ppm	█ <1	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ <1	---	---	---
Vanadium	ppm	<1	---	---	---

ADDITIVES

Calcium	ppm	█ 1771	---	---	---
Magnesium	ppm	█ 497	---	---	---
Zinc	ppm	█ 944	---	---	---
Phosphorus	ppm	█ 760	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 54	---	---	---

SMART DIESEL SERVICE

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US 33325
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Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. Elemental level of silicon (Si) above normal indicating ingress of seal material. 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.

Depot: VPSMAPLA
Unique No: 10702588
Signed: Don Baldrige
Report Date: 24 Oct 2023

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GRAPHS

