

OIL ANALYSIS REPORT

**VOLVO
PENTA**

JAKE FARLEY CATERPILLAR RNC-02303 - STARBOARD DIESEL ENGINE

Sample No: VPA051503

Oil Type: CAT DIESEL ENGINE OIL 15W40

SAMPLE INFORMATION

Sample Number	VPA051503	---	---	---
Sample Date	14 Aug 2023	---	---	---
Machine Hours	0	---	---	---
Oil Hours	100	---	---	---
Oil Changed	Not Changd	---	---	---
Sample Status	ABNORMAL	---	---	---

OIL CONDITION

Visc @ 100°C	cSt	█ 12.7	---	---	---
Base Number (BN)	mg KOH/g	█ 9.8	---	---	---
Oxidation (PA)	%	█ 76	---	---	---

CONTAMINATION

Soot %	%	█ 0.3	---	---	---
Nitration (PA)	%	█ 57	---	---	---
Sulfation (PA)	%	█ 60	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	< 1.0	---	---	---
Silicon	ppm	▲ 33	---	---	---
Sodium	ppm	█ 4	---	---	---
Potassium	ppm	█ 2	---	---	---

WEAR METALS

Iron	ppm	█ 15	---	---	---
Copper	ppm	█ 27	---	---	---
Lead	ppm	█ 1	---	---	---
Tin	ppm	█ 2	---	---	---
Aluminum	ppm	█ 0	---	---	---
Chromium	ppm	█ 3	---	---	---
Molybdenum	ppm	█ 41	---	---	---
Nickel	ppm	█ 0	---	---	---
Titanium	ppm	█ 0	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ 2	---	---	---
Vanadium	ppm	0	---	---	---

ADDITIVES

Calcium	ppm	█ 1683	---	---	---
Magnesium	ppm	█ 515	---	---	---
Zinc	ppm	█ 1131	---	---	---
Phosphorus	ppm	█ 964	---	---	---
Barium	ppm	█ 2	---	---	---
Boron	ppm	█ 52	---	---	---

Edward's Marine and Sons

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F:

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. 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: VP551029
Unique No: 10618330
Signed: Sean Felton
Report Date: 25 Aug 2023

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GRAPHS

