

OIL ANALYSIS REPORT

**VOLVO
PENTA**

WINDSERVE VOLVO PENTA 10132167580 - STARBOARD DIESEL ENGINE

Sample No: VPA046657
Oil Type: VOLVO PENTA SAE 15W40

SAMPLE INFORMATION

Sample Number	VPA046657	VPA045095	---	---
Sample Date	20 Aug 2023	18 Aug 2023	---	---
Machine Hours	0	1	---	---
Oil Hours	7	1	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	SEVERE	SEVERE	---	---

SENESCO MARINE

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NORTH KINGSTOWN, RI
US 02852
Contact: CLAUDINO LUCIANO
cluciano@senescmarine.com
T:
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OIL CONDITION

Visc @ 100°C	cSt	12.95	12.95	---	---
Base Number (BN)	mg KOH/g	9.9	10.0	---	---
Oxidation (PA)	%	72	72	---	---

CONTAMINATION

Soot %	%	0	0	---	---
Nitration (PA)	%	43	43	---	---
Sulfation (PA)	%	57	56	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	16	16	---	---
Sodium	ppm	3	3	---	---
Potassium	ppm	3	3	---	---

WEAR METALS

Iron	ppm	2	2	---	---
Copper	ppm	2	2	---	---
Lead	ppm	0	0	---	---
Tin	ppm	<1	<1	---	---
Aluminum	ppm	0	0	---	---
Chromium	ppm	0	0	---	---
Molybdenum	ppm	44	44	---	---
Nickel	ppm	0	0	---	---
Titanium	ppm	<1	<1	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	1	1	---	---
Vanadium	ppm	<1	<1	---	---

ADDITIVES

Calcium	ppm	1740	1725	---	---
Magnesium	ppm	394	389	---	---
Zinc	ppm	1073	1069	---	---
Phosphorus	ppm	882	885	---	---
Barium	ppm	0	0	---	---
Boron	ppm	77	76	---	---

Diagnosis

The oil change at the time of sampling has been noted. All component wear rates are normal. There is a high amount of particulates present in the oil. The condition of the oil is acceptable for the time in service.

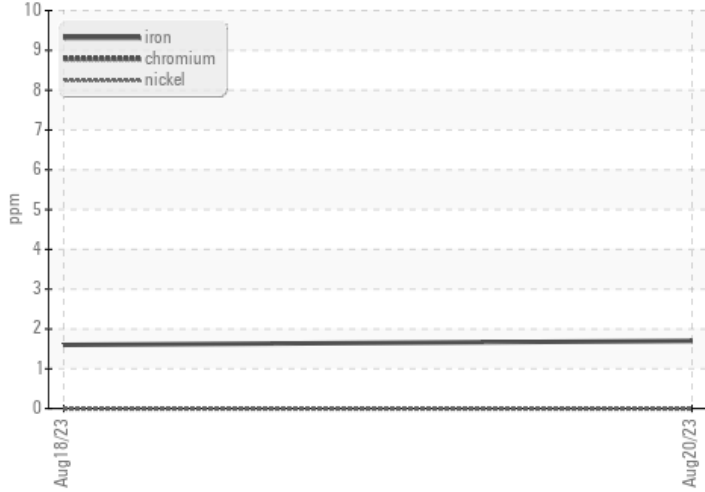
Depot: VPSENNOR
Unique No: 10609070
Signed: Doug Bogart
Report Date: 21 Aug 2023

OIL ANALYSIS REPORT

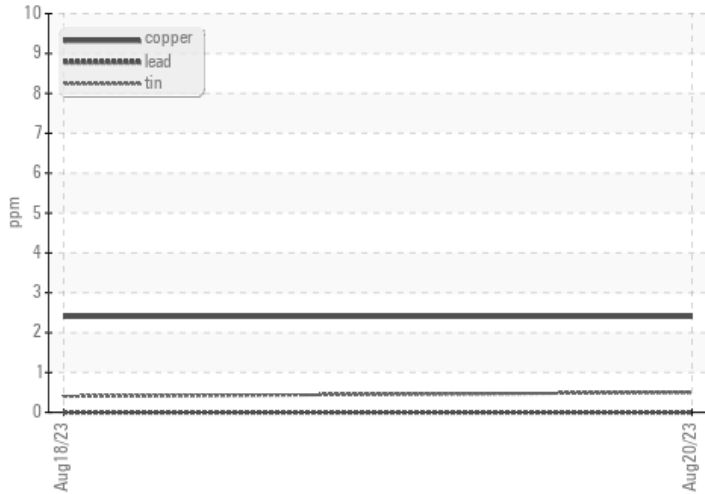
VOLVO PENTA

GRAPHS

Ferrous Alloys



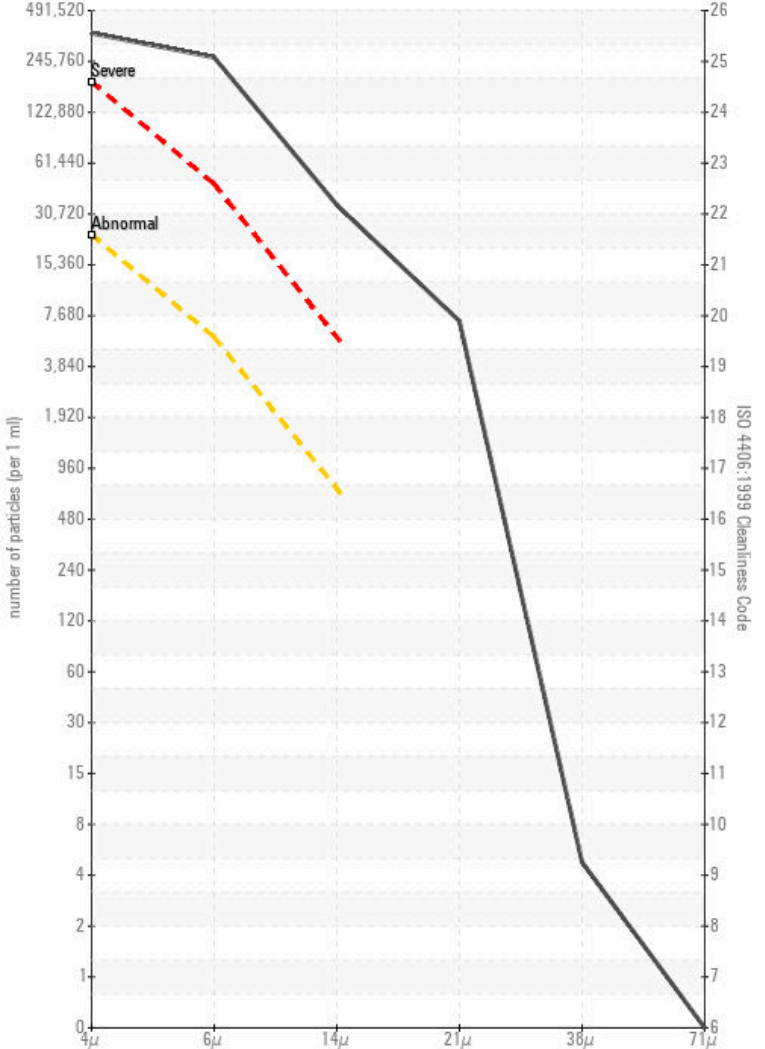
Non-ferrous Metals



Viscosity @ 100°C



Particle Count



Base Number

