



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area  
**CHARLIE WICKERS [PATRICK/502926/5250]**

Machine Id  
**VOLVO PENTA A1148149**

Component  
**Port Diesel Engine**

Fluid  
**VOLVO VDS-4.5 Premium Motor Oil 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VPA061998	VPA060024	---
Sample Date		Client Info		15 Apr 2024	21 Feb 2024	---
Machine Age	hrs	Client Info		215	194	---
Oil Age	hrs	Client Info		0	75	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Not Changd	---
Filter Changed		Client Info		Changed	Not Changd	---
Sample Status				NORMAL	NORMAL	---

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	12	12	---
Chromium	ppm	ASTM D5185m	>6	<1	<1	---
Nickel	ppm	ASTM D5185m	>2	0	1	---
Titanium	ppm	ASTM D5185m	>2	<1	<1	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>20	3	4	---
Lead	ppm	ASTM D5185m	>95	1	2	---
Copper	ppm	ASTM D5185m	>85	4	4	---
Tin	ppm	ASTM D5185m	>9	<1	1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

**CONTAMINATION**

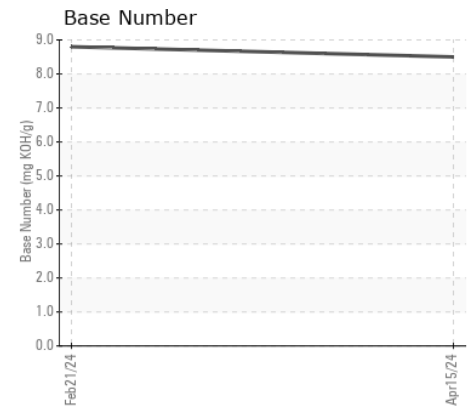
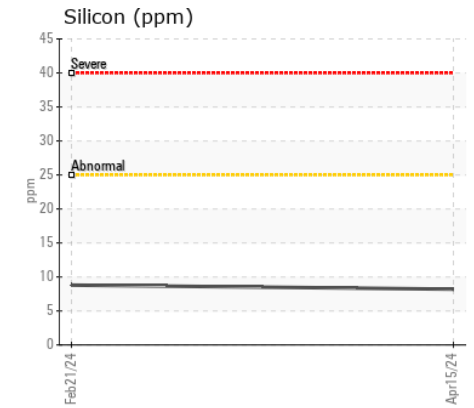
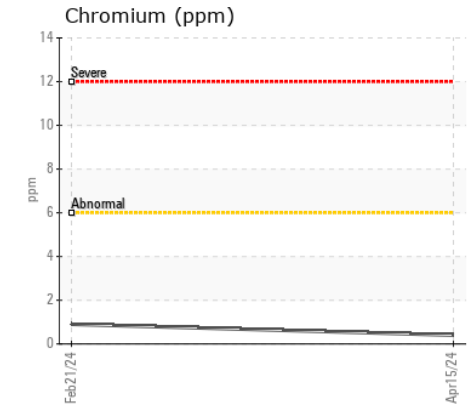
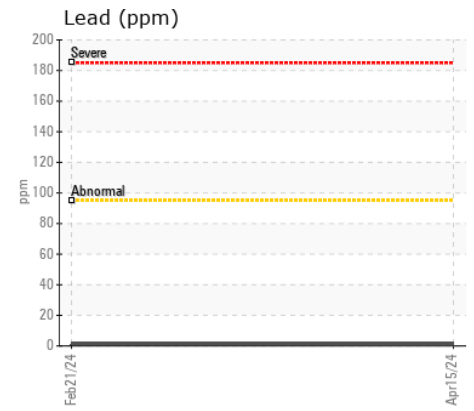
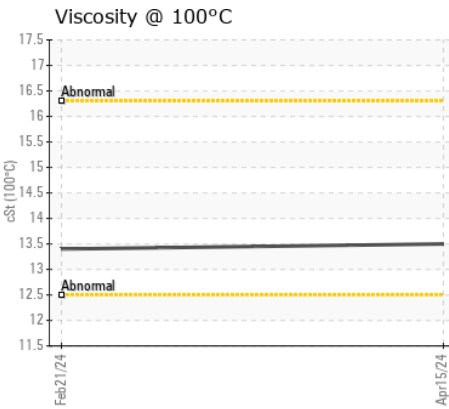
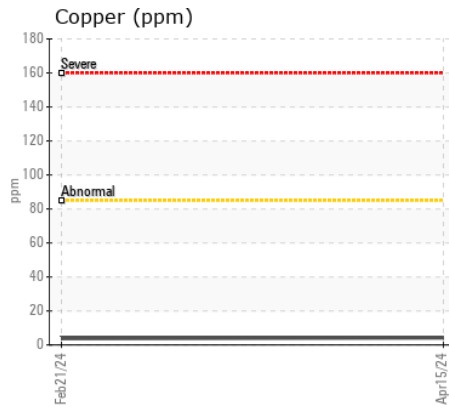
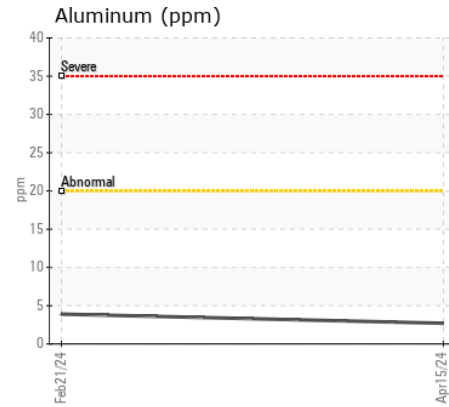
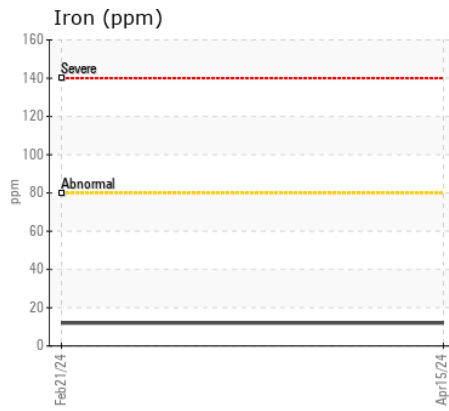
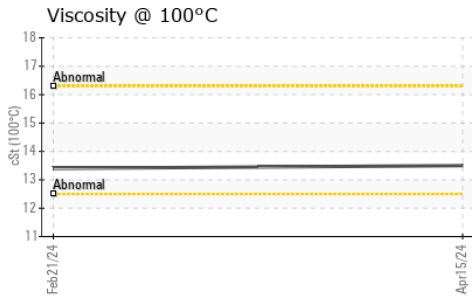
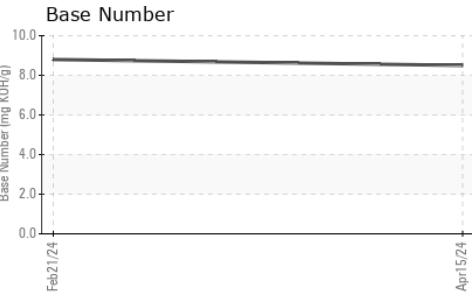
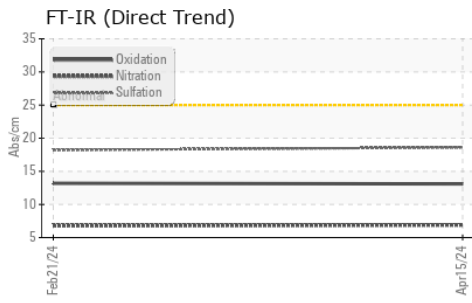
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	8	9	---
Potassium	ppm	ASTM D5185m	>20	1	2	---
Fuel		WC Method	>4.0	<1.0	<1.0	---
Water		WC Method	>0.1	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844		0.3	0.3	---
Nitration	Abs/cm	*ASTM D7624	>20	6.9	6.8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.6	18.2	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	---

**FLUID CONDITION**

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.

Sodium	ppm	ASTM D5185m		2	3	---
Boron	ppm	ASTM D5185m		111	99	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		17	17	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		642	706	---
Calcium	ppm	ASTM D5185m		1347	1321	---
Phosphorus	ppm	ASTM D5185m		696	743	---
Zinc	ppm	ASTM D5185m		751	881	---
Sulfur	ppm	ASTM D5185m		3094	3190	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.1	13.2	---
Base Number (BN)	mg KOH/g	ASTM D2896		8.5	8.8	---
Visc @ 100°C	cSt	ASTM D445		13.5	13.4	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VPA061998  
**Lab Number** : 06155498  
**Unique Number** : 10990921  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**Endor Marine LLC - Coastal Marine - 152124**  
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To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)