



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area  
**PHIL HOLT [EVAN/503040]**  
 Machine Id  
**VOLVO PENTA A1208477**  
 Component  
**Center Diesel Engine**  
 Fluid  
**VOLVO VDS-4.5 Premium Motor Oil 15W40 (6 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VPA061584</b>	VPA050678	---
Sample Date		Client Info		<b>22 Apr 2024</b>	29 Aug 2023	---
Machine Age	hrs	Client Info		<b>226</b>	50	---
Oil Age	hrs	Client Info		<b>226</b>	50	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	<b>12</b>	6	---
Chromium	ppm	ASTM D5185m	>6	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	---
Lead	ppm	ASTM D5185m	>95	<b>0</b>	0	---
Copper	ppm	ASTM D5185m	>85	<b>4</b>	10	---
Tin	ppm	ASTM D5185m	>9	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

**CONTAMINATION**

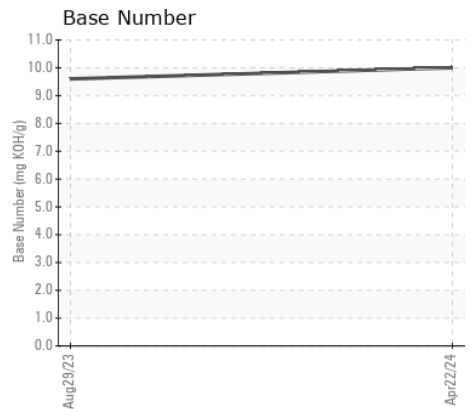
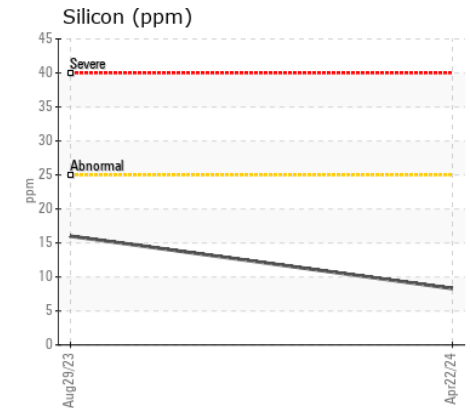
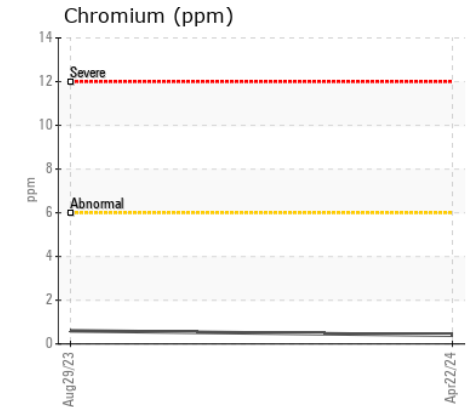
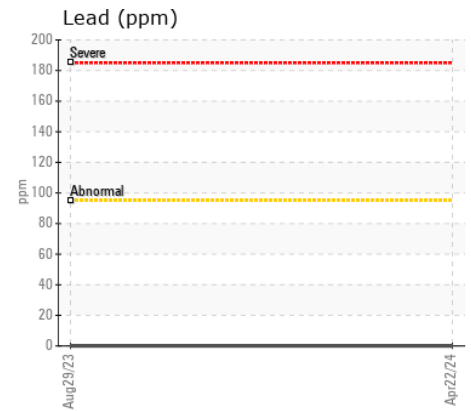
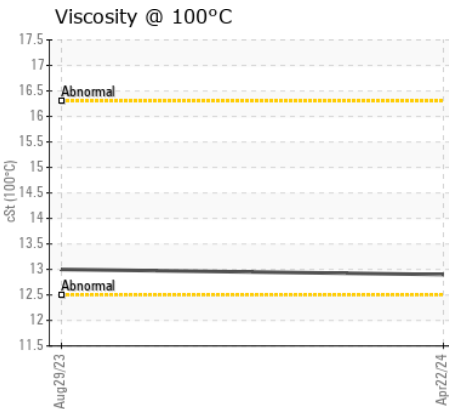
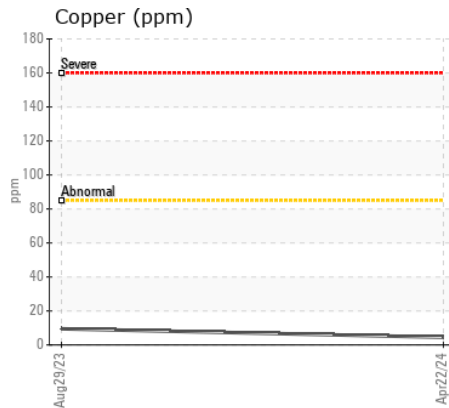
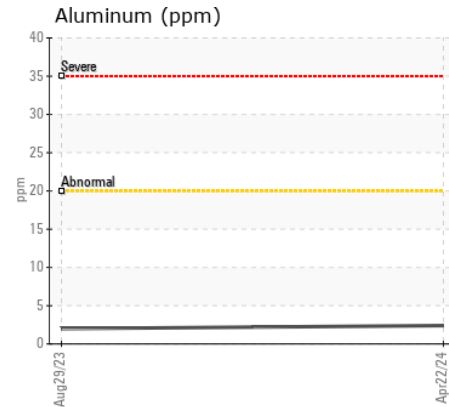
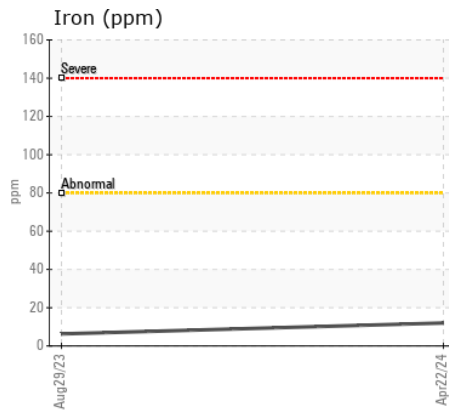
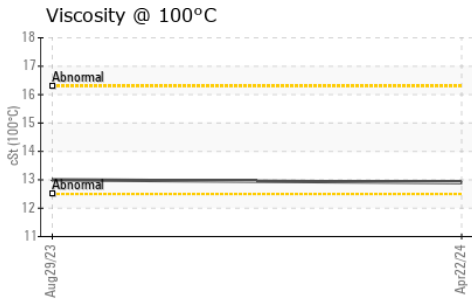
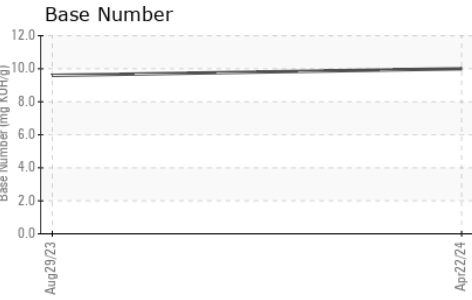
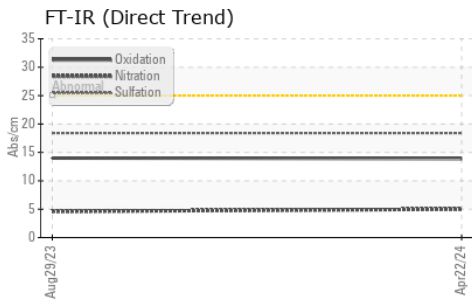
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>8</b>	16	---
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	---
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	---
Water		WC Method	>0.1	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844		<b>0.1</b>	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.0</b>	4.6	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.4</b>	18.4	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	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		<b>&lt;1</b>	2	---
Boron	ppm	ASTM D5185m		<b>1</b>	0	---
Barium	ppm	ASTM D5185m		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>60</b>	56	---
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	---
Magnesium	ppm	ASTM D5185m		<b>1034</b>	913	---
Calcium	ppm	ASTM D5185m		<b>1205</b>	1133	---
Phosphorus	ppm	ASTM D5185m		<b>1205</b>	1064	---
Zinc	ppm	ASTM D5185m		<b>1445</b>	1296	---
Sulfur	ppm	ASTM D5185m		<b>4352</b>	4103	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.9</b>	14.0	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>10.0</b>	9.6	---
Visc @ 100°C	cSt	ASTM D445		<b>12.9</b>	13.0	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VPA061584 **Received** : 24 Apr 2024  
**Lab Number** : 06158676 **Tested** : 25 Apr 2024  
**Unique Number** : 10994099 **Diagnosed** : 25 Apr 2024 - Angela Borella  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**Endor Marine LLC - Coastal Marine - 152124**  
 4300 11th Ave. NW  
 SEATTLE, WA  
 US 98107  
 Contact: WILLOW YANARELLA  
 service@coastalmarineengine.com  
 T: (206)784-3703  
 F: (206)784-8823

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)