



OIL ANALYSIS REPORT

WEAR	<b>ABNORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area  
**BRAD BARNARD [7719460]**

Machine Id  
**VOLVO PENTA 2004005405**

Component  
**Port Diesel Engine**

Fluid  
**VOLVO VDS-4.5 Premium Motor Oil 15W40 (3 GAL)**

**RECOMMENDATION**

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VPA054006</b>	---	---
Sample Date		Client Info		<b>10 Apr 2024</b>	---	---
Machine Age	hrs	Client Info		<b>1070</b>	---	---
Oil Age	hrs	Client Info		<b>1070</b>	---	---
Filter Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>Changed</b>	---	---
Filter Changed		Client Info		<b>Changed</b>	---	---
Sample Status				<b>ABNORMAL</b>	---	---

**WEAR**

The aluminum level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	<b>17</b>	---	---
Chromium	ppm	ASTM D5185m	>6	<b>&lt;1</b>	---	---
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	---	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>20	<b>▲ 43</b>	---	---
Lead	ppm	ASTM D5185m	>95	<b>5</b>	---	---
Copper	ppm	ASTM D5185m	>85	<b>12</b>	---	---
Tin	ppm	ASTM D5185m	>9	<b>1</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

**CONTAMINATION**

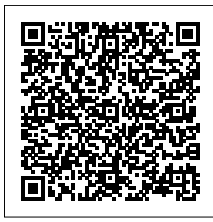
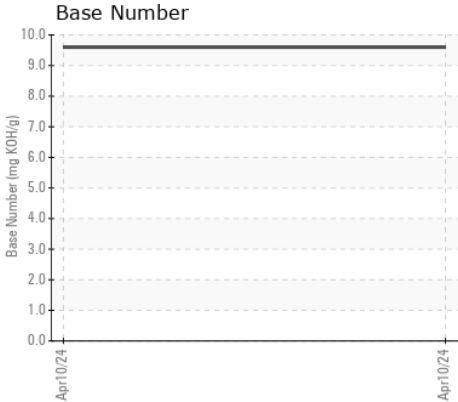
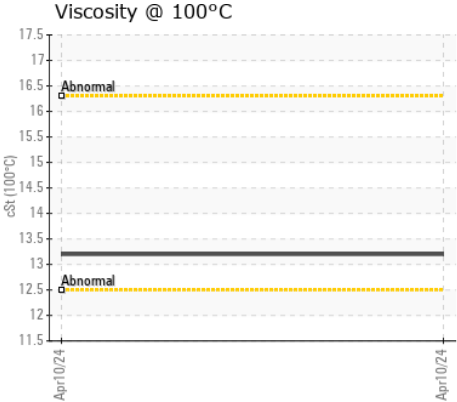
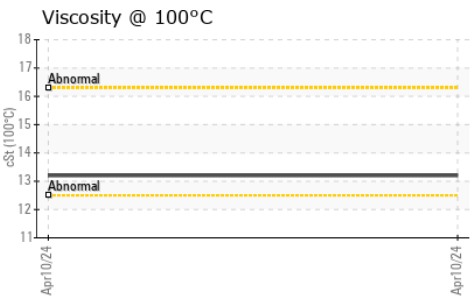
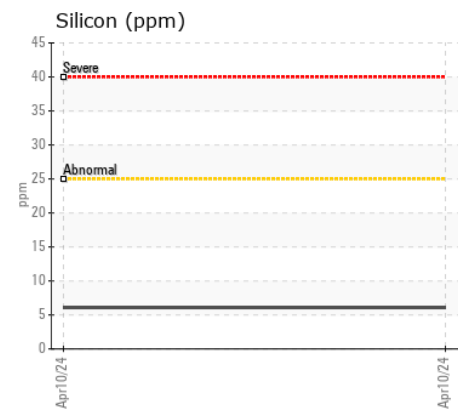
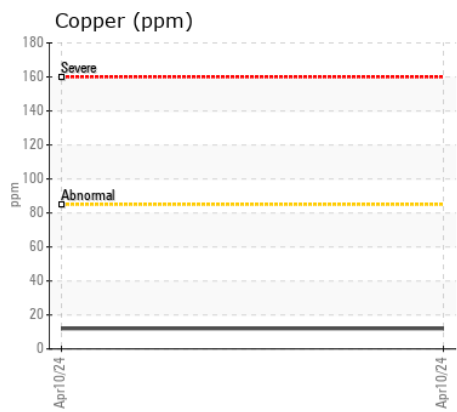
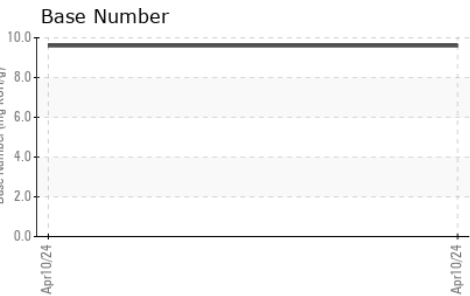
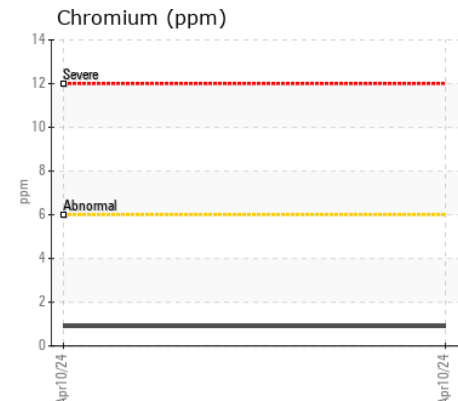
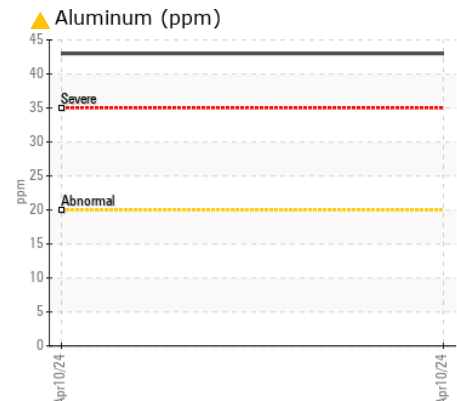
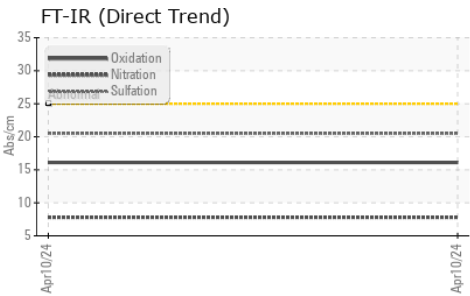
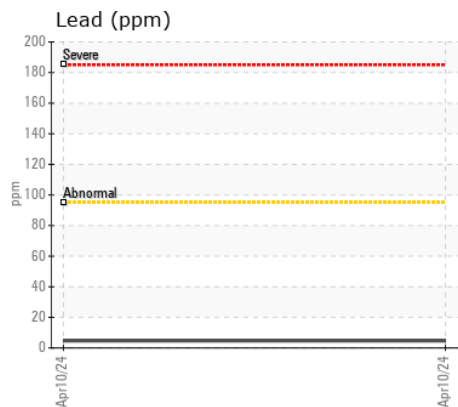
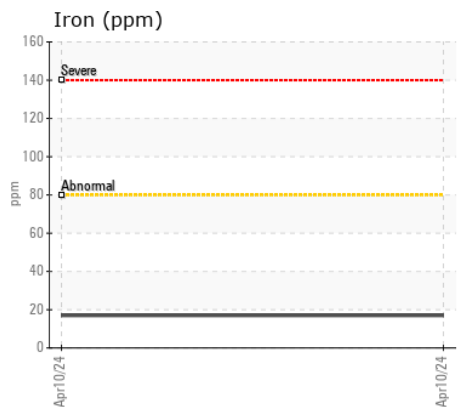
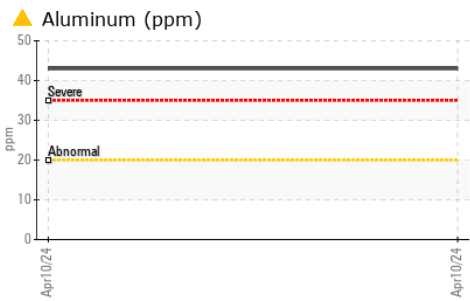
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	---	---
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	---	---
Water		WC Method	>0.1	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	*ASTM D7844		<b>0.2</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.8</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.5</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	---	---

**FLUID CONDITION**

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>3</b>	---	---
Boron	ppm	ASTM D5185m		<b>9</b>	---	---
Barium	ppm	ASTM D5185m		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>64</b>	---	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>962</b>	---	---
Calcium	ppm	ASTM D5185m		<b>1088</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>1081</b>	---	---
Zinc	ppm	ASTM D5185m		<b>1260</b>	---	---
Sulfur	ppm	ASTM D5185m		<b>3689</b>	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.1</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>9.6</b>	---	---
Visc @ 100°C	cSt	ASTM D445		<b>13.2</b>	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VPA054006 **Received** : 23 Apr 2024  
**Lab Number** : 06157337 **Tested** : 24 Apr 2024  
**Unique Number** : 10992760 **Diagnosed** : 25 Apr 2024 - Jonathan Hester  
**Test Package** : MOB 1 ( Additional Tests: TBN )

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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)