



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

Area  
**BARRY BARR [1610045]**

Machine Id  
**ZF 20024467 - INBOARD**

Component  
**Port Gearbox**

Fluid  
**VOLVO VDS-4.5 Premium Motor Oil 15W40 (1 GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VPA050731</b>	VPA047197	---
Sample Date		Client Info		<b>27 Mar 2024</b>	11 Apr 2022	---
Machine Age	hrs	Client Info		<b>0</b>	1404	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>N/A</b>	Changed	---
Filter Changed		Client Info		<b>N/A</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

### WEAR

All component wear rates are normal.

PQ		ASTM D8184		<b>18</b>	17	---
Iron	ppm	ASTM D5185m	>150	<b>17</b>	21	---
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m	>10	<b>1</b>	<1	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Aluminum	ppm	ASTM D5185m	>5	<b>2</b>	2	---
Lead	ppm	ASTM D5185m	>65	<b>2</b>	2	---
Copper	ppm	ASTM D5185m	>80	<b>24</b>	31	---
Tin	ppm	ASTM D5185m	>8	<b>2</b>	2	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	VLITE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

### CONTAMINATION

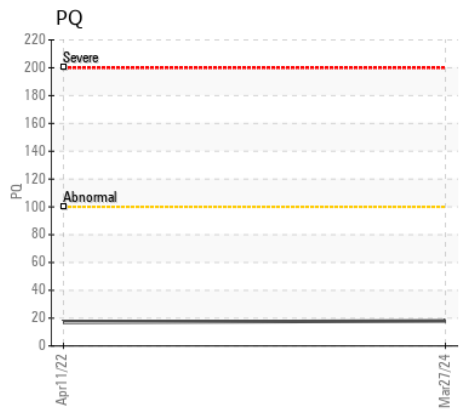
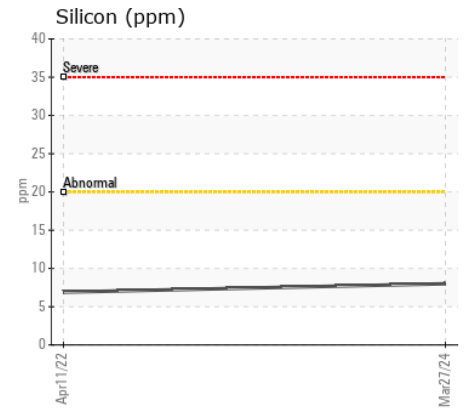
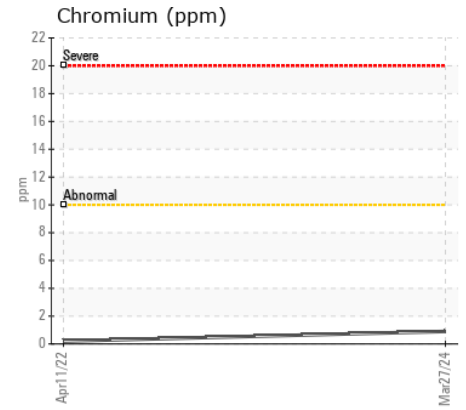
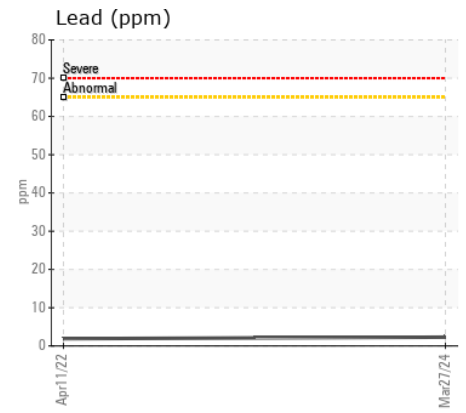
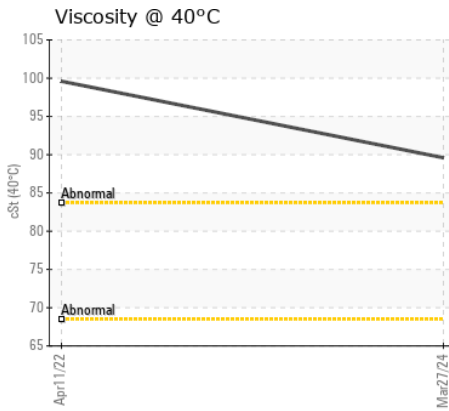
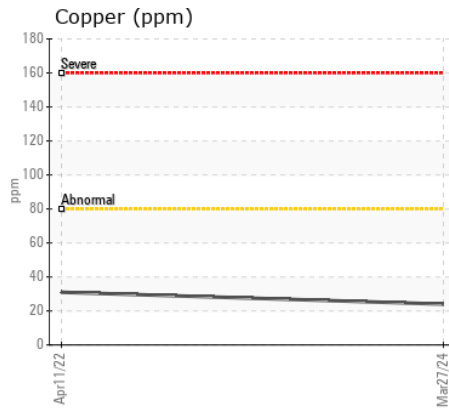
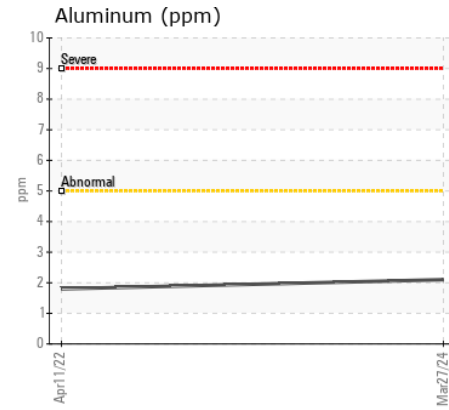
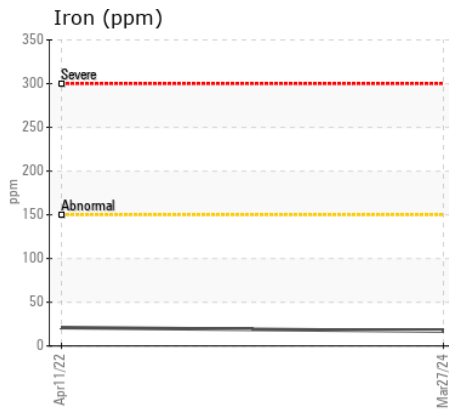
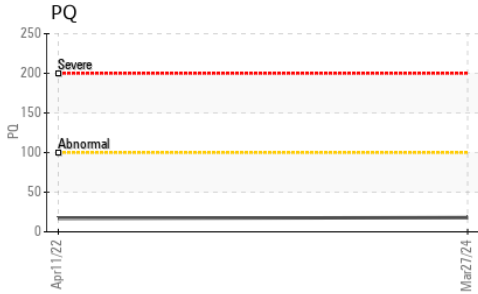
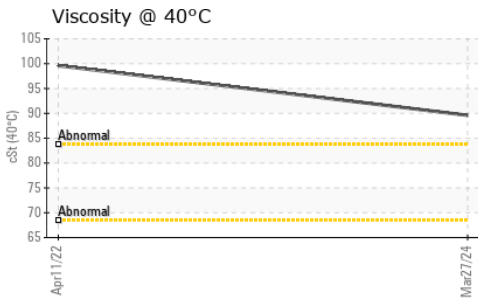
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>8</b>	7	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
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	>0.2	<b>NEG</b>	NEG	---

### FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	1	---
Boron	ppm	ASTM D5185m		<b>221</b>	343	---
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>57</b>	57	---
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	---
Magnesium	ppm	ASTM D5185m		<b>535</b>	313	---
Calcium	ppm	ASTM D5185m		<b>1998</b>	2492	---
Phosphorus	ppm	ASTM D5185m		<b>1163</b>	975	---
Zinc	ppm	ASTM D5185m		<b>1188</b>	1053	---
Sulfur	ppm	ASTM D5185m		<b>4592</b>	3340	---
Visc @ 40°C	cSt	ASTM D445		<b>89.6</b>	99.6	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VPA050731 **Received** : 17 Apr 2024  
**Lab Number** : 06152310 **Tested** : 18 Apr 2024  
**Unique Number** : 10982388 **Diagnosed** : 19 Apr 2024 - Doug Bogart  
**Test Package** : MOB 1 ( Additional Tests: PQ )

**Pacific Power Group - VP981534**  
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 Kent, WA  
 US 98032  
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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)