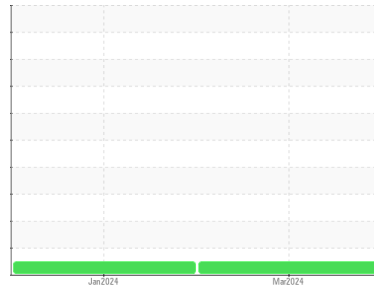




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id

**MERCEDES-BENZ VF-84**

Component

**Gasoline Engine**

Fluid

**HIGH PERFORMANCE LUBRICANTS HDEO 5W40 (10 QTS)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### 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.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>HPL008243</b>	HPL008204	---
Sample Date	Client Info		<b>04 Mar 2024</b>	12 Jan 2024	---
Machine Age	hrs	Client Info	<b>130137</b>	7780	---
Oil Age	hrs	Client Info	<b>10137</b>	0	---
Oil Changed	Client Info		<b>Changed</b>	Not Changd	---
Sample Status			<b>NORMAL</b>	NORMAL	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>4.0	<b>&lt;1.0</b>	<1.0	---
Water	WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol	WC Method		<b>NEG</b>	NEG	---

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>150	<b>6</b>	8	---
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	0	---
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	---
Titanium	ppm	ASTM D5185m		<b>0</b>	0	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>40	<b>14</b>	13	---
Lead	ppm	ASTM D5185m	>50	<b>0</b>	1	---
Copper	ppm	ASTM D5185m	>155	<b>10</b>	10	---
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	1	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>86</b>	101	---
Barium	ppm	ASTM D5185m		<b>2</b>	1	---
Molybdenum	ppm	ASTM D5185m		<b>898</b>	904	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m		<b>580</b>	598	---
Calcium	ppm	ASTM D5185m		<b>2448</b>	2522	---
Phosphorus	ppm	ASTM D5185m		<b>778</b>	855	---
Zinc	ppm	ASTM D5185m		<b>916</b>	988	---
Sulfur	ppm	ASTM D5185m		<b>6116</b>	7372	---

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>30	<b>11</b>	12	---
Sodium	ppm	ASTM D5185m	>400	<b>4</b>	3	---
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	---

## INFRA-RED

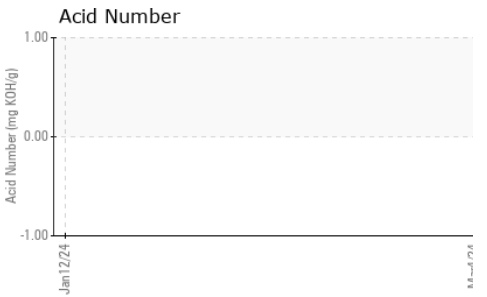
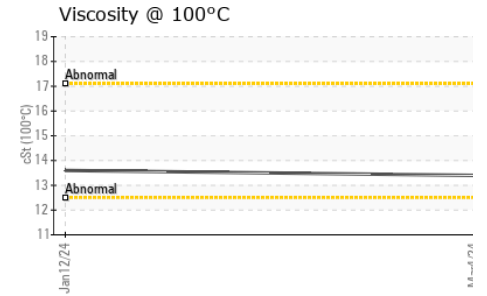
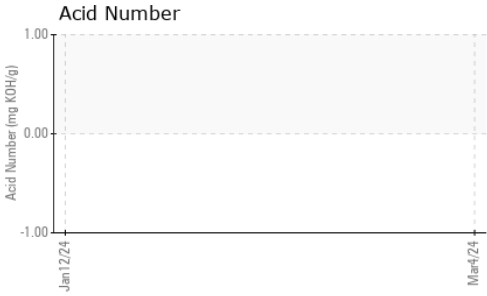
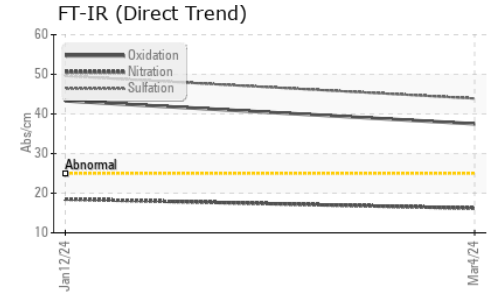
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844		<b>0.2</b>	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>16.2</b>	18.5	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>43.9</b>	49.6	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>37.5</b>	43.3	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>6.82</b>	7.22	---



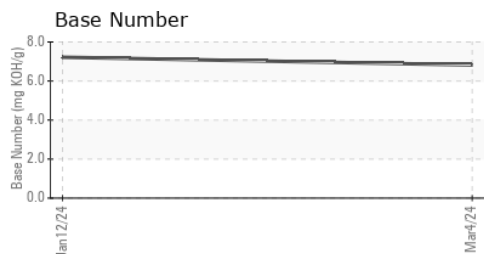
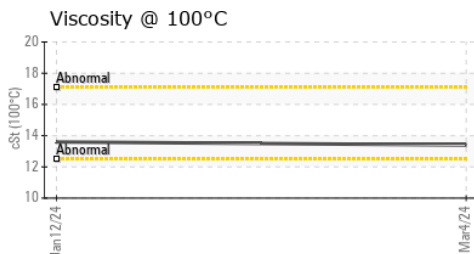
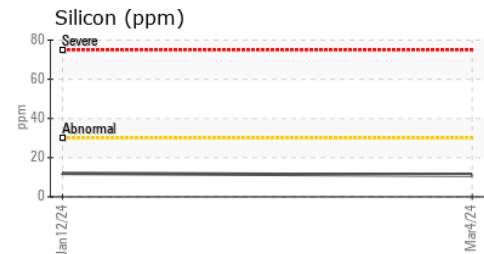
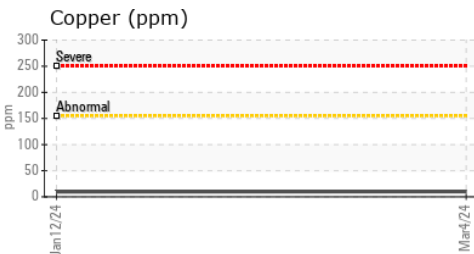
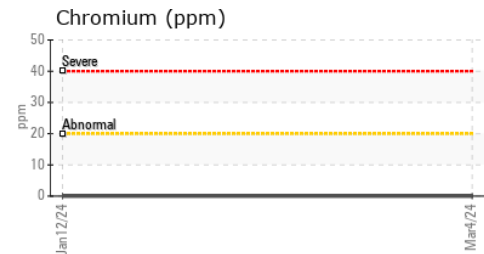
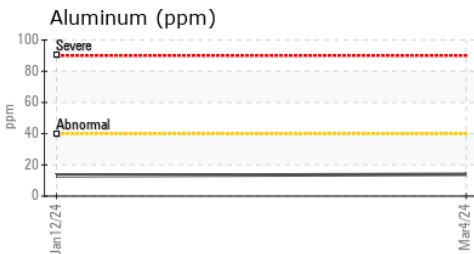
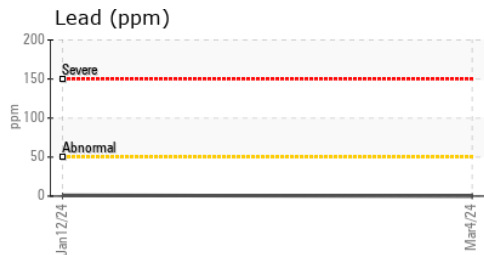
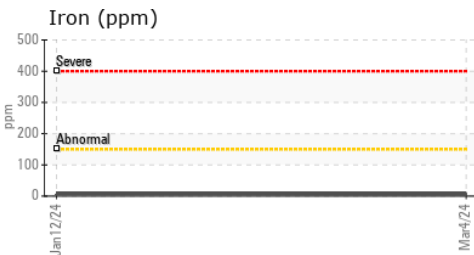
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	LIGHT	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	NONE	---
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	>0.2	NEG	NEG	---
Free Water	scalar	*Visual		NEG	NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	<b>13.4</b>	13.6	---

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : HPL008243      **Received** : 09 Apr 2024  
**Lab Number** : **06143268**      **Tested** : 11 Apr 2024  
**Unique Number** : 10968076      **Diagnosed** : 11 Apr 2024 - Sean Felton  
**Test Package** : MOB 2 ( Additional Tests: TBN )

**ROB REED**  
 2108 WAKE FOREST ST  
 VIRGINIA BEACH, VA  
 US 23451  
 Contact: Service Manager  
 UALASTRO@GMAIL.COM

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)

T:  
F: