



# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id

**415**

Component

**Diesel Engine**

Fluid

**DIESEL ENGINE OIL SAE 40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm. Please specify the component make and model with your next sample.

### 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>WC0584582</b>	---	---
Sample Date	Client Info		<b>30 Nov 2023</b>	---	---
Machine Age	mls	Client Info	<b>178480</b>	---	---
Oil Age	mls	Client Info	<b>12000</b>	---	---
Oil Changed	Client Info		<b>Changed</b>	---	---
Sample Status			<b>NORMAL</b>	---	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	---	---
Water	WC Method	>0.2	<b>NEG</b>	---	---
Glycol	WC Method		<b>NEG</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	<b>34</b>	---
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	---
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	---
Titanium	ppm	ASTM D5185m		<b>0</b>	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	---
Aluminum	ppm	ASTM D5185m	>20	<b>10</b>	---
Lead	ppm	ASTM D5185m	>40	<b>0</b>	---
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	---
Tin	ppm	ASTM D5185m	>15	<b>0</b>	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	<b>313</b>	---
Barium	ppm	ASTM D5185m	10	<b>2</b>	---
Molybdenum	ppm	ASTM D5185m	100	<b>92</b>	---
Manganese	ppm	ASTM D5185m		<b>0</b>	---
Magnesium	ppm	ASTM D5185m	450	<b>428</b>	---
Calcium	ppm	ASTM D5185m	3000	<b>1438</b>	---
Phosphorus	ppm	ASTM D5185m	1150	<b>991</b>	---
Zinc	ppm	ASTM D5185m	1350	<b>1283</b>	---
Sulfur	ppm	ASTM D5185m	4250	<b>3607</b>	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>20</b>	---
Sodium	ppm	ASTM D5185m	>216	<b>&lt;1</b>	---
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	---

## INFRA-RED

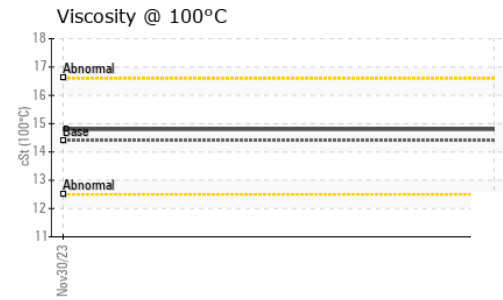
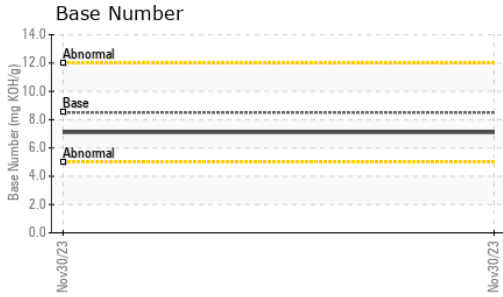
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.8</b>	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.2</b>	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.9</b>	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>21.7</b>	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>7.1</b>	---



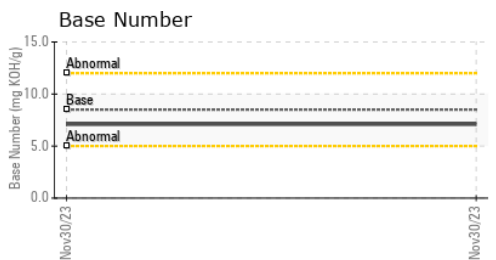
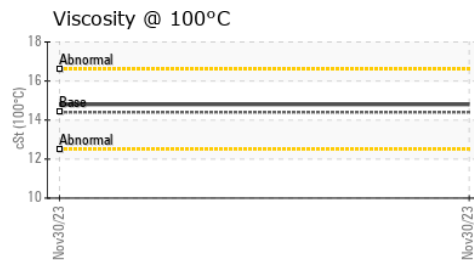
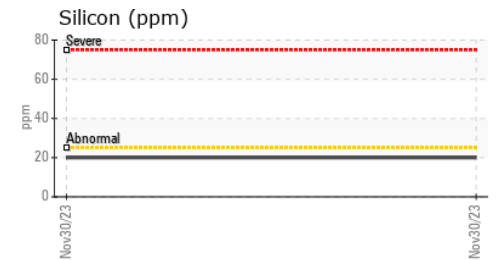
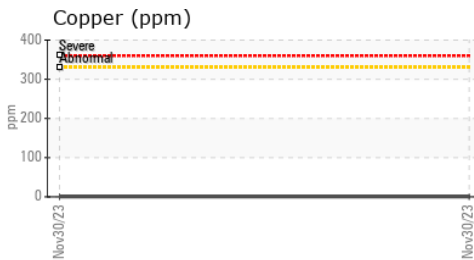
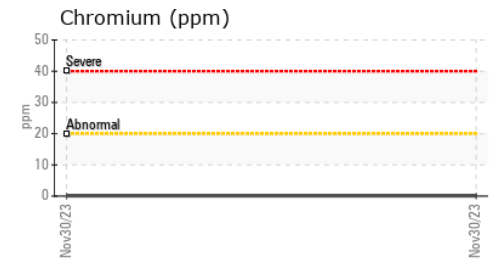
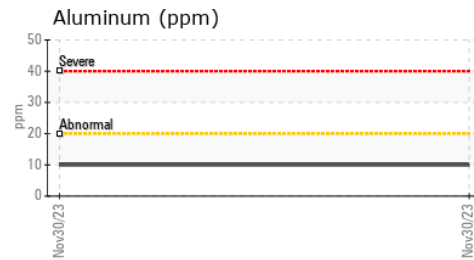
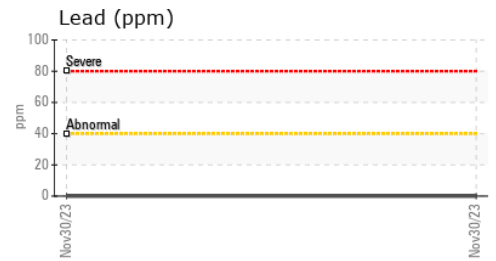
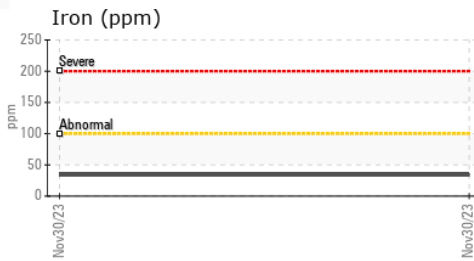
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	<b>14.8</b>	---

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0584582 **Received** : 06 Dec 2023  
**Lab Number** : 06026081 **Diagnosed** : 07 Dec 2023  
**Unique Number** : 10775872 **Diagnostician** : Wes Davis  
**Test Package** : MOB1+

**MIDDLESBORO COCA-COLA BOTTLING - MCCB**  
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 MIDDLESBORO, KY  
 US 40965  
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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)