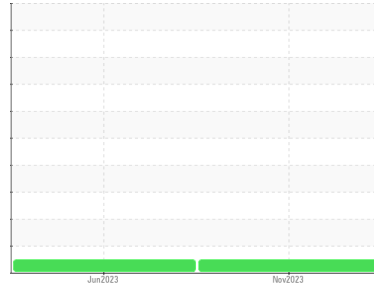




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**MACK GR64F XT2504 (S/N 1M2GR4GC3KM010394)**  
 Component  
**Diesel Engine**  
 Fluid  
**DURALENE Dura-Max Xtreme 15W40 (--- GAL)**

## 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 acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>DC0028885</b>	DC0030095	---
Sample Date	Client Info		<b>01 Nov 2023</b>	08 Jun 2023	---
Machine Age	mls	Client Info	<b>106314</b>	89626	---
Oil Age	mls	Client Info	<b>16300</b>	89626	---
Oil Changed	Client Info		<b>Changed</b>	Changed	---
Sample Status			<b>NORMAL</b>	NORMAL	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	<1.0	---
Glycol	WC Method		<b>NEG</b>	NEG	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >120	<b>17</b>	17	---
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m >5	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185m >2	<b>0</b>	<1	---
Silver	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	---
Aluminum	ppm	ASTM D5185m >20	<b>3</b>	1	---
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	<1	---
Copper	ppm	ASTM D5185m >330	<b>4</b>	3	---
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	1	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	---
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>7</b>	34	---
Barium	ppm	ASTM D5185m	<b>4</b>	0	---
Molybdenum	ppm	ASTM D5185m	<b>55</b>	52	---
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	---
Magnesium	ppm	ASTM D5185m	<b>727</b>	598	---
Calcium	ppm	ASTM D5185m	<b>1353</b>	1782	---
Phosphorus	ppm	ASTM D5185m	<b>946</b>	927	---
Zinc	ppm	ASTM D5185m	<b>1159</b>	1166	---
Sulfur	ppm	ASTM D5185m	<b>2999</b>	3456	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>8</b>	4	---
Sodium	ppm	ASTM D5185m	<b>0</b>	2	---
Potassium	ppm	ASTM D5185m >20	<b>11</b>	2	---

## INFRA-RED

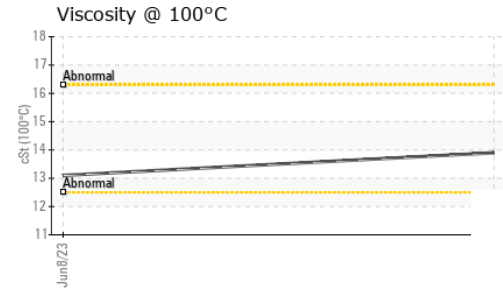
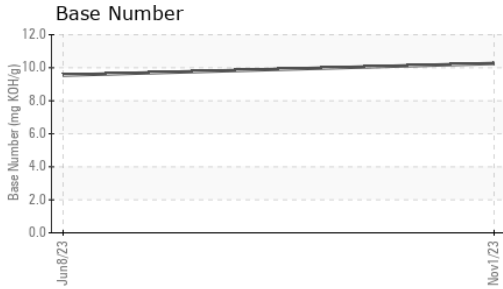
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.6</b>	0.5	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.8</b>	8.8	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.7</b>	22.9	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>17.1</b>	20.3	---
Base Number (BN)	mg KOH/g	ASTM D2896	<b>10.26</b>	9.55	---



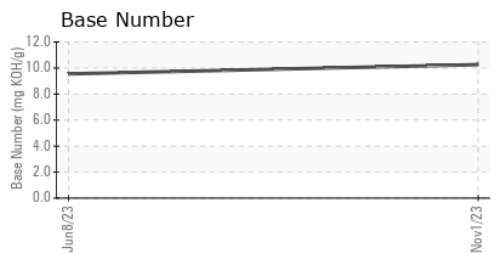
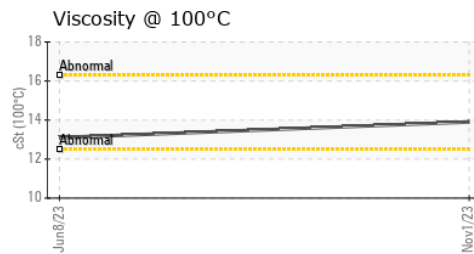
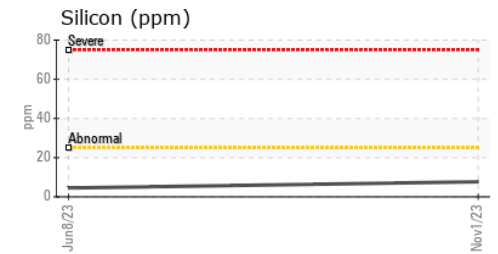
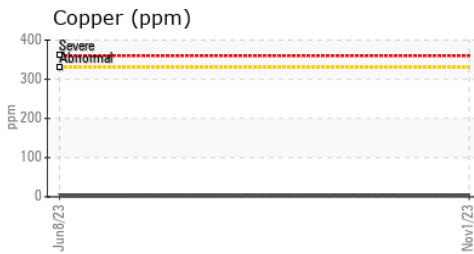
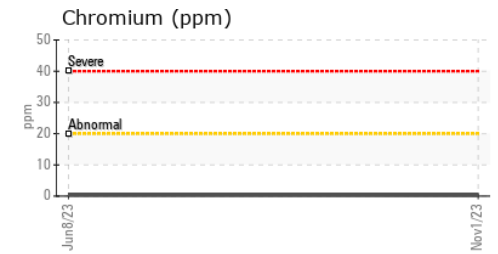
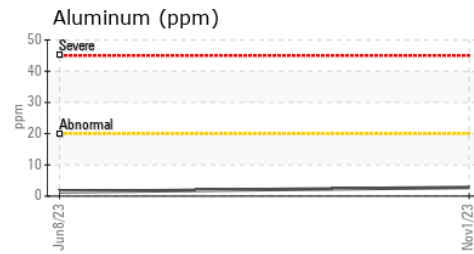
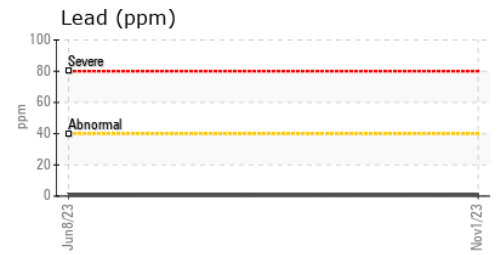
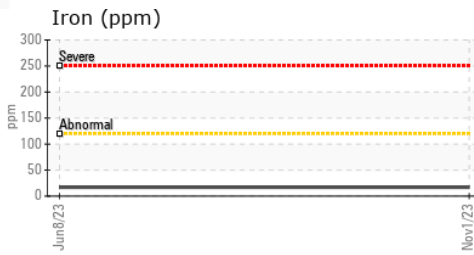
# OIL ANALYSIS REPORT



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	<b>13.9</b>	13.1	---

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DC0028885 **Received** : 02 Nov 2023  
**Lab Number** : **05997471** **Diagnosed** : 05 Nov 2023  
**Unique Number** : 10725831 **Diagnostician** : Don Baldrige  
**Test Package** : MOB 2

**COMER CONSTRUCTION**  
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 FOREST HILL, MD  
 US 21050  
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 dfox@comerconstruction.com  
 T: (443)269-1379  
 F: (410)638-0289

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)