



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**1545 (S/N MBN09272)**  
 Component  
**Diesel Engine**  
 Fluid  
**SHELL ROTELLA T 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0917137</b>	WC0822358	---
Sample Date		Client Info		<b>10 Jun 2024</b>	20 Sep 2023	---
Machine Age	mls	Client Info		<b>128574</b>	107594	---
Oil Age	mls	Client Info		<b>0</b>	0	---
Filter Age	mls	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Changed	---
Filter Changed		Client Info		<b>Changed</b>	Changed	---
Sample Status				<b>NORMAL</b>	ABNORMAL	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>92</b>	▲ 218	---
Chromium	ppm	ASTM D5185m	>20	<b>3</b>	6	---
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	1	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	4	---
Lead	ppm	ASTM D5185m	>40	<b>6</b>	▲ 40	---
Copper	ppm	ASTM D5185m	>330	<b>36</b>	103	---
Tin	ppm	ASTM D5185m	>15	<b>2</b>	13	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

## CONTAMINATION

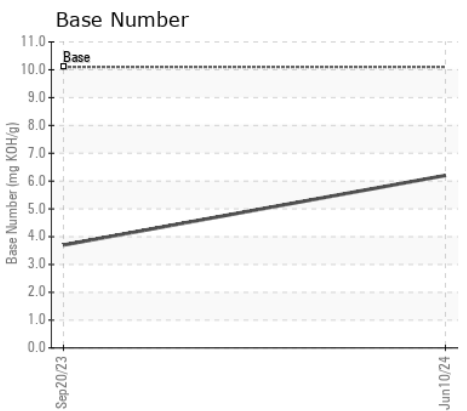
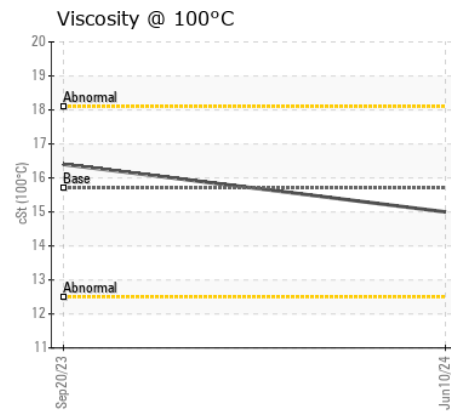
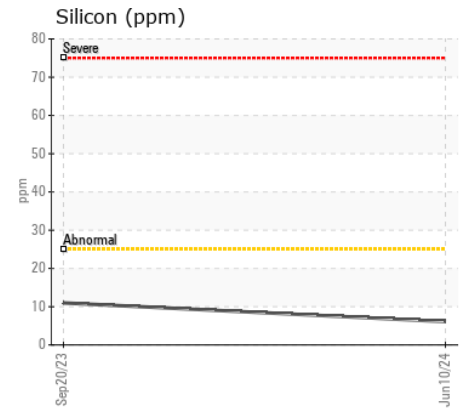
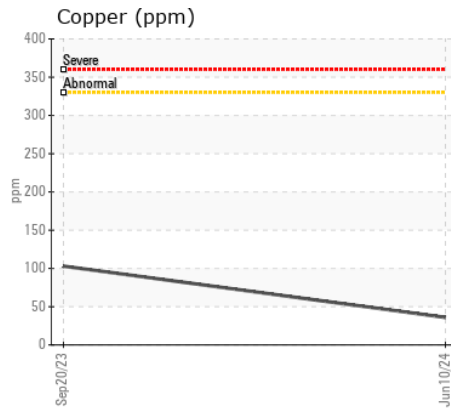
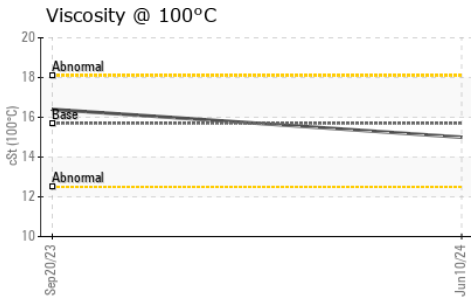
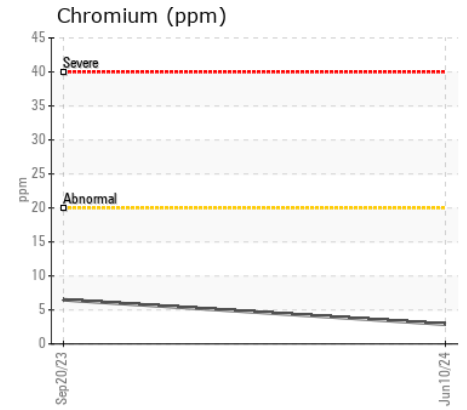
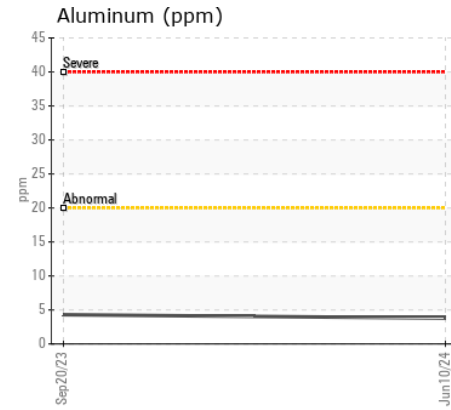
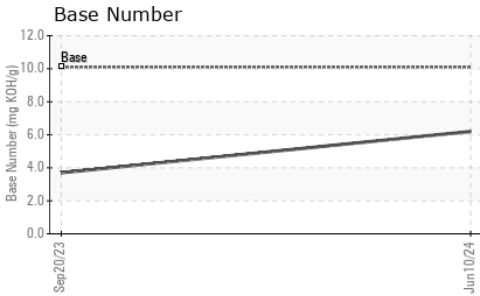
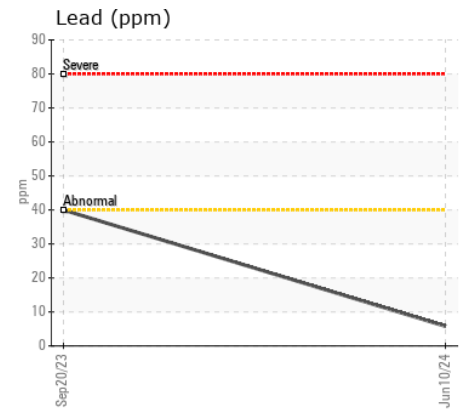
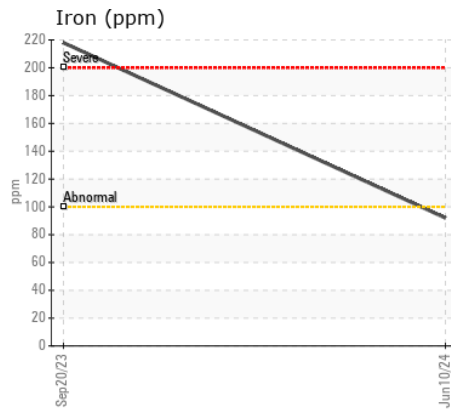
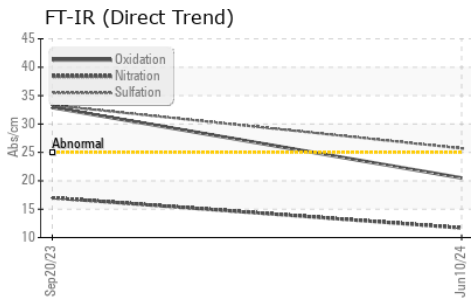
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	11	---
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>3	<b>1.9</b>	▲ 3.3	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.7</b>	17.0	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.7</b>	33.3	---
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 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>6</b>	6	---
Boron	ppm	ASTM D5185m	316	<b>5</b>	37	---
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	1.2	<b>49</b>	64	---
Manganese	ppm	ASTM D5185m		<b>1</b>	2	---
Magnesium	ppm	ASTM D5185m	24	<b>643</b>	800	---
Calcium	ppm	ASTM D5185m	2292	<b>1671</b>	1582	---
Phosphorus	ppm	ASTM D5185m	1064	<b>1016</b>	1055	---
Zinc	ppm	ASTM D5185m	1160	<b>1267</b>	1368	---
Sulfur	ppm	ASTM D5185m	4996	<b>3371</b>	2986	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.5</b>	32.9	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	<b>6.2</b>	▲ 3.7	---
Visc @ 100°C	cSt	ASTM D445	15.7	<b>15.0</b>	16.4	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0917137 **Received** : 14 Jun 2024  
**Lab Number** : 06211089 **Tested** : 19 Jun 2024  
**Unique Number** : 11083953 **Diagnosed** : 19 Jun 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

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)

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