



# OIL ANALYSIS REPORT

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

Machine Id  
**139519**  
Component  
**Diesel Engine**  
Fluid  
**MOBIL 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>RPL0008087</b>	RPL0008136	RPL0008021
Sample Date		Client Info		<b>27 Nov 2023</b>	10 Aug 2023	24 Feb 2023
Machine Age	mls	Client Info		<b>185659</b>	153117	88990
Oil Age	mls	Client Info		<b>32542</b>	29428	45505
Filter Age	mls	Client Info		<b>32542</b>	29428	45505
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>16</b>	25	43
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	3
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	1	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>20	<b>16</b>	24	54
Lead	ppm	ASTM D5185m	>40	<b>6</b>	3	6
Copper	ppm	ASTM D5185m	>330	<b>0</b>	<1	6
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	2
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

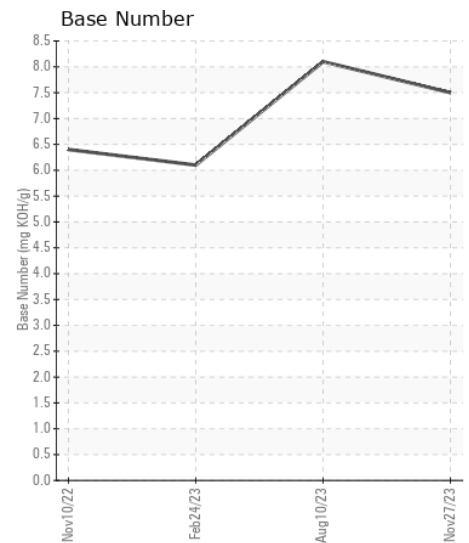
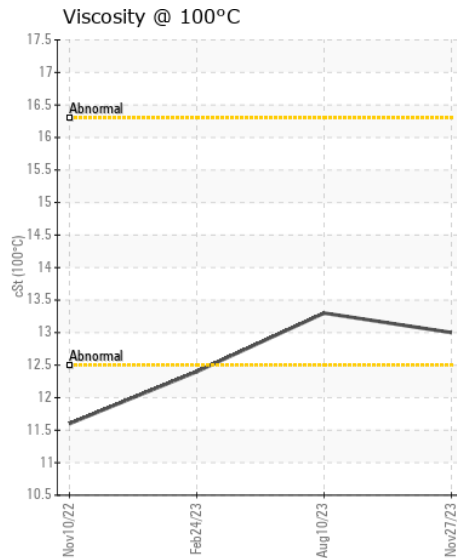
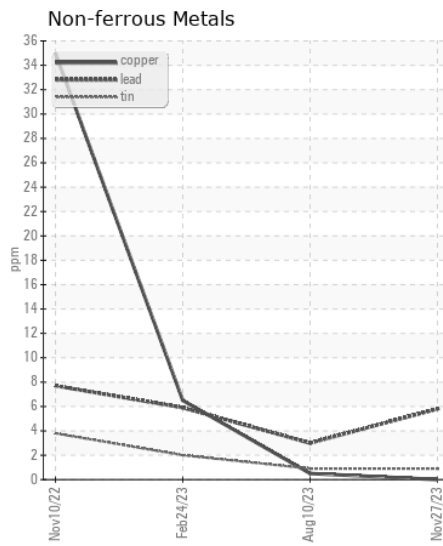
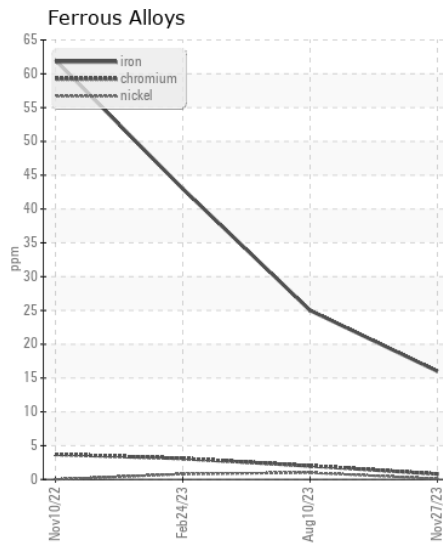
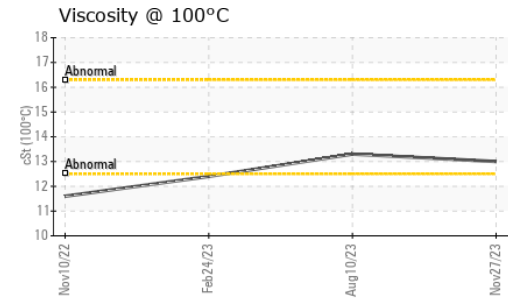
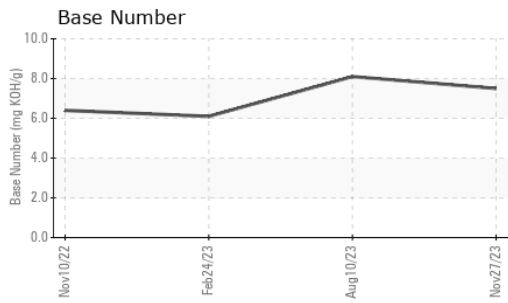
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	9	13
Potassium	ppm	ASTM D5185m	>20	<b>42</b>	73	135
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.1</b>	9.5	9.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.7</b>	21.0	23.2
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	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	>118	<b>&lt;1</b>	3	2
Boron	ppm	ASTM D5185m		<b>4</b>	4	7
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>65</b>	71	57
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	2
Magnesium	ppm	ASTM D5185m		<b>976</b>	1087	826
Calcium	ppm	ASTM D5185m		<b>1049</b>	1212	1084
Phosphorus	ppm	ASTM D5185m		<b>1064</b>	1121	873
Zinc	ppm	ASTM D5185m		<b>1298</b>	1395	1098
Sulfur	ppm	ASTM D5185m		<b>3034</b>	3804	2900
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.7</b>	17.4	19.3
Base Number (BN)	mg KOH/g	ASTM D2896		<b>7.5</b>	8.1	6.1
Visc @ 100°C	cSt	ASTM D445		<b>13.0</b>	13.3	▲ 12.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RPL0008087 **Received** : 16 Jan 2024  
**Lab Number** : 06060891 **Diagnosed** : 17 Jan 2024  
**Unique Number** : 10832273 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**RTL PACLEASE - 7017 - Oklahoma City**  
 8700 West I-40  
 Oklahoma City, OK  
 US 73128  
 Contact: TECHNICIAN ACCOUNT  
 catherine.anastasio@wearcheck.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)

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F: