



# OIL ANALYSIS REPORT

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

Area  
**Store 9 - Marietta**

Machine Id  
**1101**

Component  
**Diesel Engine**

Fluid  
**SHELL ROTELLA T 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LEC0045350</b>	LEC0048052	LEC0045872
Sample Date		Client Info		<b>21 Feb 2024</b>	02 Feb 2024	05 Jan 2024
Machine Age	mls	Client Info		<b>324070</b>	319433	303396
Oil Age	mls	Client Info		<b>5000</b>	5000	5000
Filter Age	mls	Client Info		<b>5000</b>	5000	5000
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>7</b>	9	8
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>2</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	4	5
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	2
Copper	ppm	ASTM D5185m	>330	<b>2</b>	3	5
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

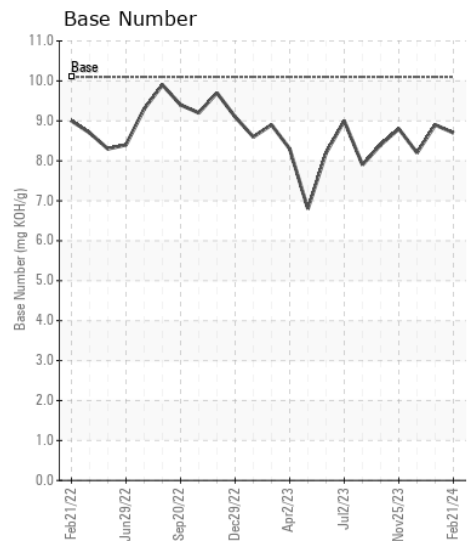
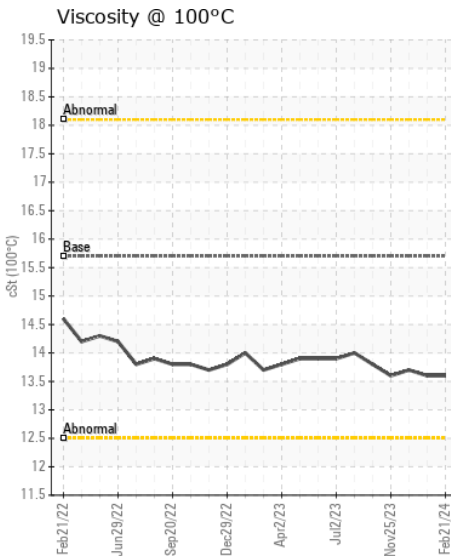
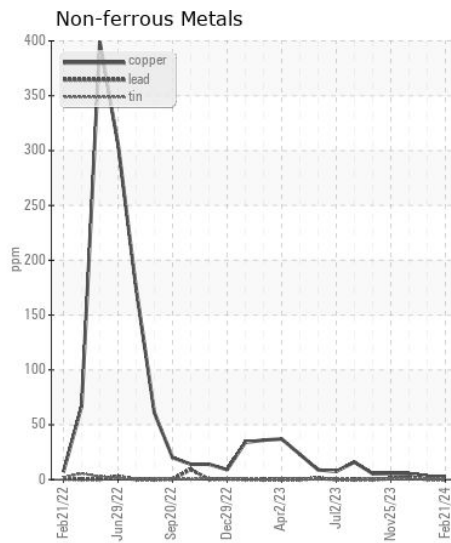
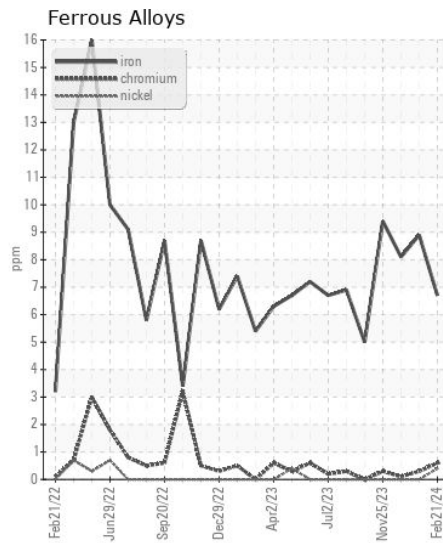
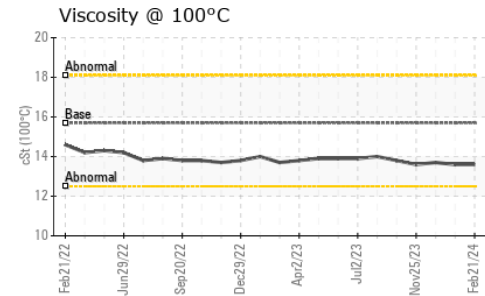
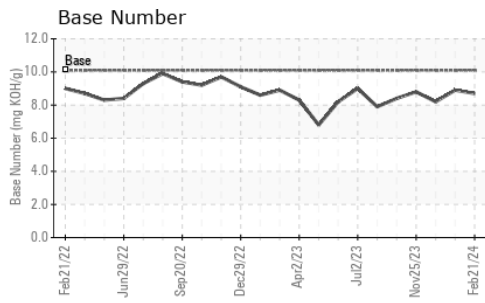
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>120	<b>6</b>	5	5
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	5
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>0.2</b>	0.8	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.5</b>	8.5	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.0</b>	24.1	23.6
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		<b>1</b>	<1	3
Boron	ppm	ASTM D5185m	316	<b>287</b>	266	252
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	1.2	<b>121</b>	136	131
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	24	<b>694</b>	708	684
Calcium	ppm	ASTM D5185m	2292	<b>1540</b>	1561	1502
Phosphorus	ppm	ASTM D5185m	1064	<b>710</b>	741	743
Zinc	ppm	ASTM D5185m	1160	<b>883</b>	915	864
Sulfur	ppm	ASTM D5185m	4996	<b>2751</b>	2537	2404
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.5</b>	16.8	18.0
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	<b>8.7</b>	8.9	8.2
Visc @ 100°C	cSt	ASTM D445	15.7	<b>13.6</b>	13.6	13.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0045350 **Received** : 28 Feb 2024  
**Lab Number** : **06102818** **Tested** : 29 Feb 2024  
**Unique Number** : 10901048 **Diagnosed** : 29 Feb 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: TBN )

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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)