



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**FREIGHTLINER MC001**  
Component  
**Diesel Engine**  
Fluid  
**MOBIL 15W40 (38 QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0908137</b>	WC0881500	WC0839285
Sample Date		Client Info		<b>13 May 2024</b>	01 Jan 2024	19 Jul 2023
Machine Age	mls	Client Info		<b>768775</b>	749796	729908
Oil Age	mls	Client Info		<b>25000</b>	25000	25000
Filter Age	mls	Client Info		<b>25000</b>	25000	25000
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	>165	<b>87</b>	63	55
Chromium	ppm	ASTM D5185m	>5	<b>2</b>	2	2
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	2	<1
Lead	ppm	ASTM D5185m	>150	<b>1</b>	3	3
Copper	ppm	ASTM D5185m	>90	<b>1</b>	<1	<1
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

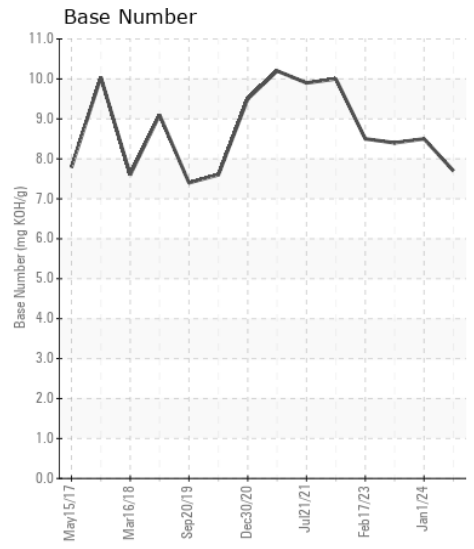
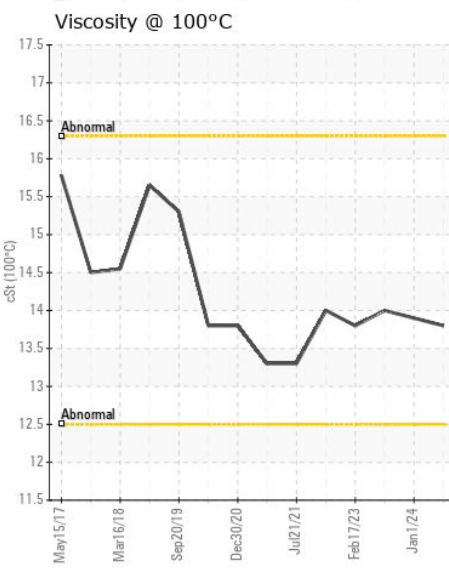
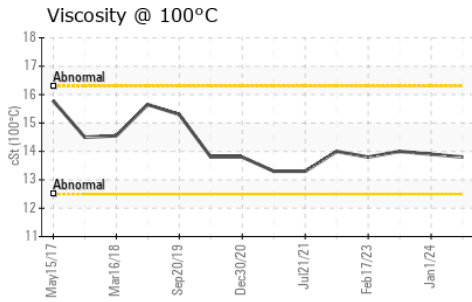
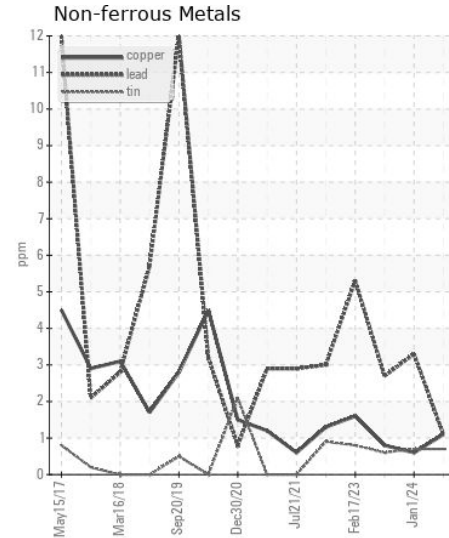
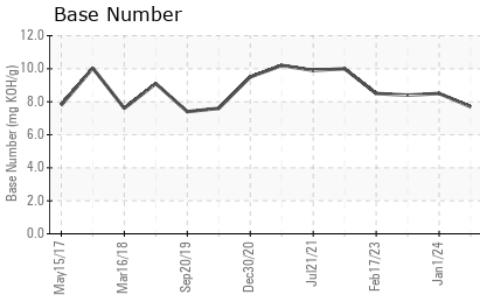
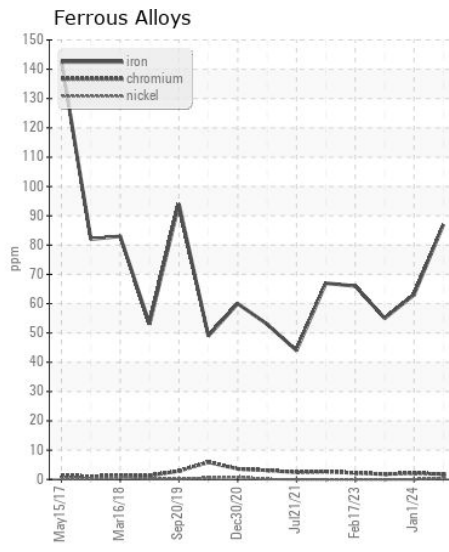
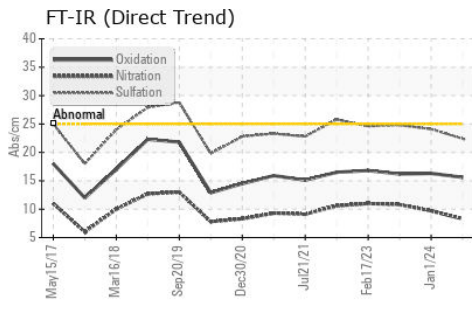
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>35	<b>9</b>	8	4
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	0
Fuel		WC Method	>3.0	<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	>7.5	<b>1.1</b>	2.3	2.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.3</b>	9.7	10.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.4</b>	24.1	24.8
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>1</b>	<1	2
Boron	ppm	ASTM D5185m		<b>233</b>	1	2
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>79</b>	62	62
Manganese	ppm	ASTM D5185m		<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>539</b>	1053	972
Calcium	ppm	ASTM D5185m		<b>1240</b>	1150	1194
Phosphorus	ppm	ASTM D5185m		<b>1094</b>	1099	1025
Zinc	ppm	ASTM D5185m		<b>1224</b>	1338	1252
Sulfur	ppm	ASTM D5185m		<b>3413</b>	3310	3732
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.6</b>	16.3	16.2
Base Number (BN)	mg KOH/g	ASTM D2896		<b>7.7</b>	8.5	8.4
Visc @ 100°C	cSt	ASTM D445		<b>13.8</b>	13.9	14.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0908137  
**Lab Number** : 06213019  
**Unique Number** : 11085883  
**Test Package** : FLEET

**Received** : 17 Jun 2024  
**Tested** : 19 Jun 2024  
**Diagnosed** : 19 Jun 2024 - Wes Davis

**SALEM NATIONALEASE CORPORATION**  
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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)