



# OIL ANALYSIS REPORT

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

Machine Id  
**FREIGHTLINER 17767**  
Component  
**Diesel Engine**  
Fluid  
**MOBIL 15W40 (20 QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0904480</b>	WC0861098	WC0861067
Sample Date		Client Info		<b>06 May 2024</b>	29 Jan 2024	06 Nov 2023
Machine Age	mls	Client Info		<b>200287</b>	191888	184438
Oil Age	mls	Client Info		<b>10000</b>	15000	10000
Filter Age	mls	Client Info		<b>10000</b>	15000	10000
Oil Changed		Client Info		<b>Changed</b>	N/A	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	<b>11</b>	9	7
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	2	2
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	<1	1
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
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

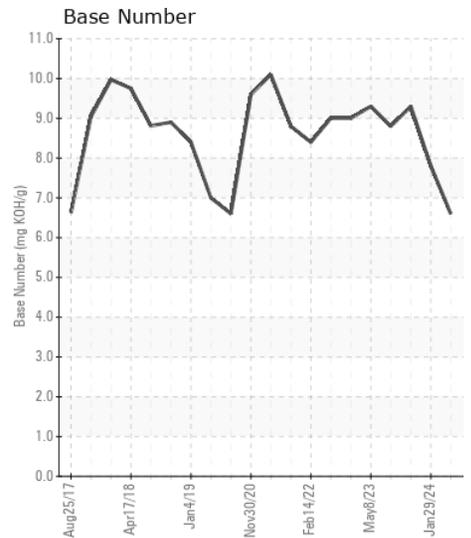
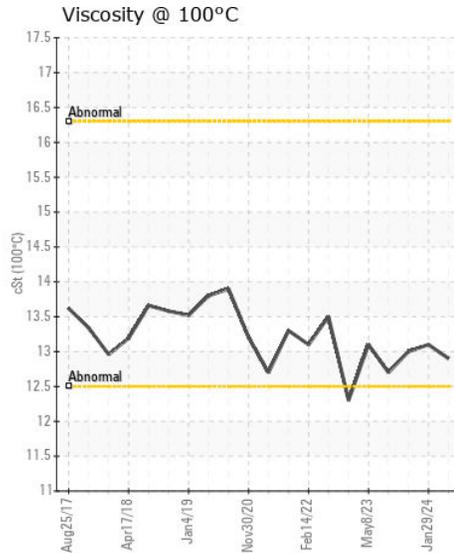
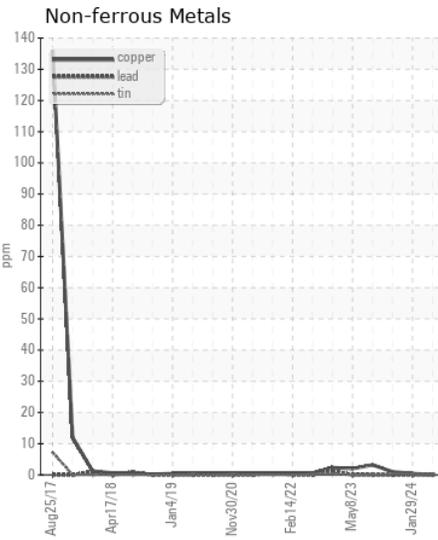
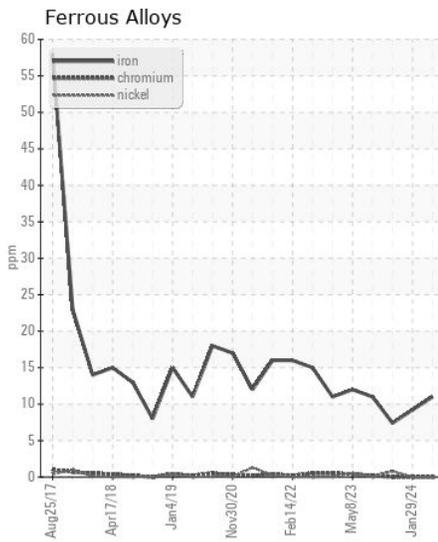
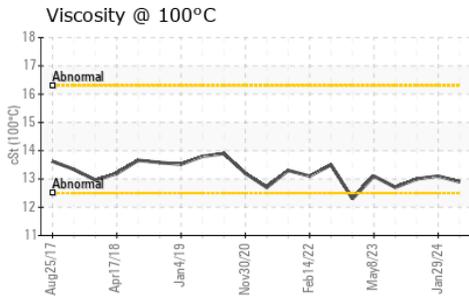
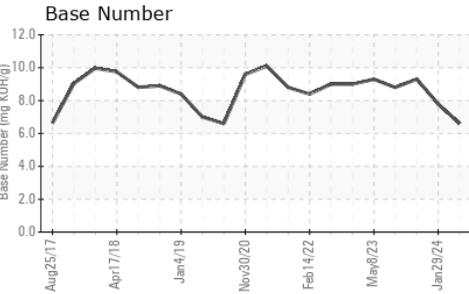
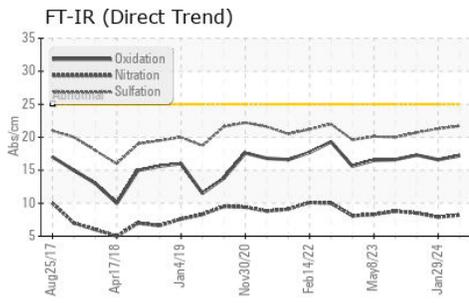
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	4	3
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	2
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	>6	<b>0.2</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.2</b>	7.9	8.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.7</b>	21.3	20.7
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>295</b>	239	6
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>81</b>	77	59
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>500</b>	578	932
Calcium	ppm	ASTM D5185m		<b>1321</b>	1268	1066
Phosphorus	ppm	ASTM D5185m		<b>1074</b>	1028	1127
Zinc	ppm	ASTM D5185m		<b>1254</b>	1188	1251
Sulfur	ppm	ASTM D5185m		<b>3528</b>	3567	3254
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.2</b>	16.6	17.3
Base Number (BN)	mg KOH/g	ASTM D2896		<b>6.6</b>	7.8	9.3
Visc @ 100°C	cSt	ASTM D445		<b>12.9</b>	13.1	13.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0904480  
**Lab Number** : 06196506  
**Unique Number** : 11058629  
**Test Package** : FLEET  
**Received** : 31 May 2024  
**Tested** : 03 Jun 2024  
**Diagnosed** : 03 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)