



# OIL ANALYSIS REPORT

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

Machine Id  
**FREIGHTLINER 25563**  
Component  
**Diesel Engine**  
Fluid  
**EXXON 15W40 (44 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0879992</b>	WC0845585	WC0632982
Sample Date		Client Info		<b>26 Mar 2024</b>	08 Nov 2023	18 Dec 2021
Machine Age	mls	Client Info		<b>228847</b>	207504	151098
Oil Age	mls	Client Info		<b>0</b>	50000	0
Filter Age	mls	Client Info		<b>0</b>	50000	0
Oil Changed		Client Info		<b>N/A</b>	Changed	N/A
Filter Changed		Client Info		<b>N/A</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	<b>13</b>	16	25
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	1	3
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>6</b>	8	16
Lead	ppm	ASTM D5185m	>30	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m	>150	<b>2</b>	3	13
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	1	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</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.

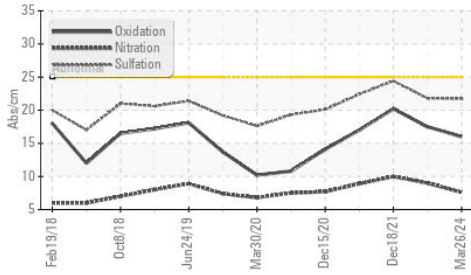
Silicon	ppm	ASTM D5185m	>20	<b>4</b>	3	4
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	13	29
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.5</b>	0.7	0.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.6</b>	9.0	10
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.7</b>	21.8	24.4
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

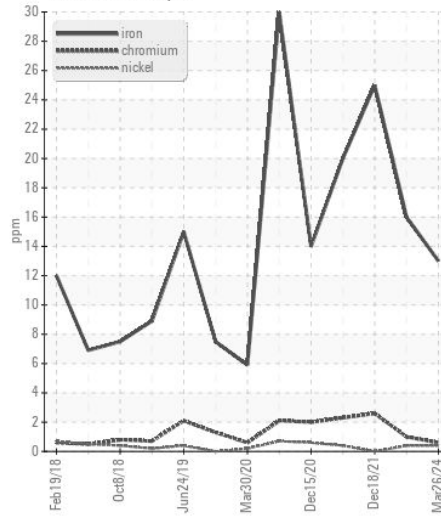
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	3
Boron	ppm	ASTM D5185m		<b>244</b>	4	1
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>94</b>	77	65
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>620</b>	983	995
Calcium	ppm	ASTM D5185m		<b>1558</b>	1116	1235
Phosphorus	ppm	ASTM D5185m		<b>1137</b>	1086	1047
Zinc	ppm	ASTM D5185m		<b>1468</b>	1359	1217
Sulfur	ppm	ASTM D5185m		<b>3990</b>	3053	2266
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.0</b>	17.5	20.2
Base Number (BN)	mg KOH/g	ASTM D2896		<b>7.1</b>	7.3	6.8
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.6</b>	13.4	13.9

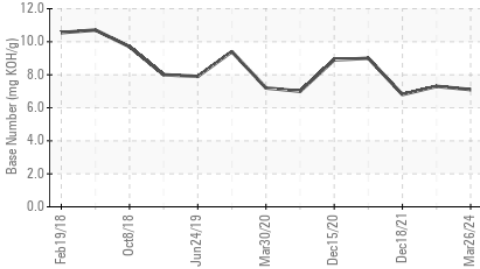
**FT-IR (Direct Trend)**



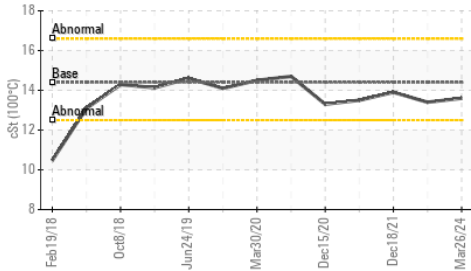
**Ferrous Alloys**



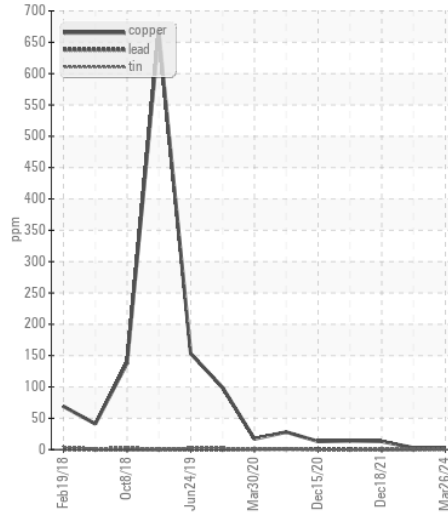
**Base Number**



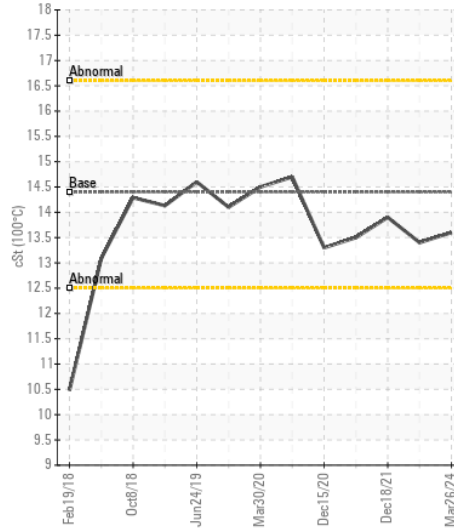
**Viscosity @ 100°C**



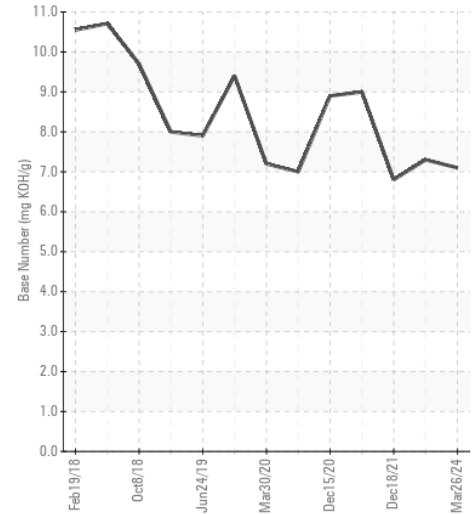
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : WC0879992

**Lab Number** : 06145730

**Unique Number** : 10970538

**Test Package** : FLEET

**Received** : 11 Apr 2024

**Tested** : 12 Apr 2024

**Diagnosed** : 14 Apr 2024 - Don Baldrige

**SALEM NATIONALEASE CORPORATION**

198 PARK PLAZA DRIVE

WINSTON SALEM, NC

US 27105

Contact: Audrey Hopkins

Audrey.Hopkins@salemcorp.com

T: (336)767-9642

F: x:

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)