



# OIL ANALYSIS REPORT

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

Machine Id  
**LINKBELT C2101 UPPER**  
 Component  
**Rear Diesel Engine**  
 Fluid  
**SHELL ROTELLA T4 15W40 (19 QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0909744</b>	WC0801676	WC0766682
Sample Date		Client Info		<b>10 Apr 2024</b>	09 May 2023	03 Feb 2023
Machine Age	hrs	Client Info		<b>7143</b>	6524	6429
Oil Age	hrs	Client Info		<b>250</b>	250	250
Filter Age	hrs	Client Info		<b>250</b>	250	250
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>4</b>	2	4
Chromium	ppm	ASTM D5185m	>5	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>1</b>	<1	2
Lead	ppm	ASTM D5185m	>150	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>90	<b>&lt;1</b>	0	<1
Tin	ppm	ASTM D5185m	>5	<b>0</b>	0	<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.

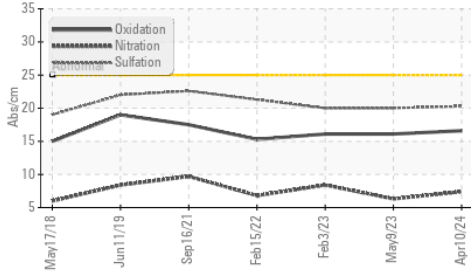
Silicon	ppm	ASTM D5185m	>35	<b>5</b>	4	4
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	6	3
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>7.5	<b>0.1</b>	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.4</b>	6.3	8.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.3</b>	20.0	20.0
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

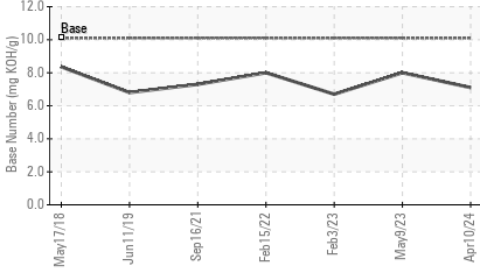
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>1</b>	2	2
Boron	ppm	ASTM D5185m		<b>150</b>	173	128
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>13</b>	11	36
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>65</b>	46	84
Calcium	ppm	ASTM D5185m		<b>2122</b>	2048	1973
Phosphorus	ppm	ASTM D5185m		<b>946</b>	960	914
Zinc	ppm	ASTM D5185m		<b>1138</b>	1180	1084
Sulfur	ppm	ASTM D5185m		<b>3938</b>	3937	3868
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.6</b>	16.1	16.1
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	<b>7.1</b>	8.0	6.7
Visc @ 100°C	cSt	ASTM D445	15	<b>13.3</b>	13.9	13.6

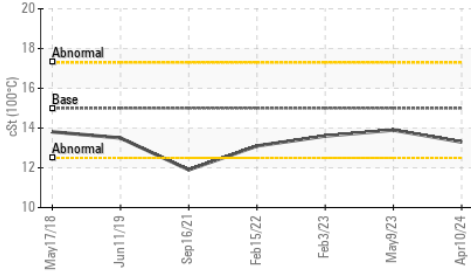
**FT-IR (Direct Trend)**



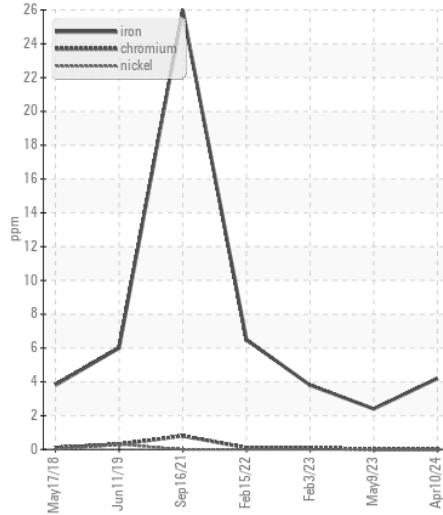
**Base Number**



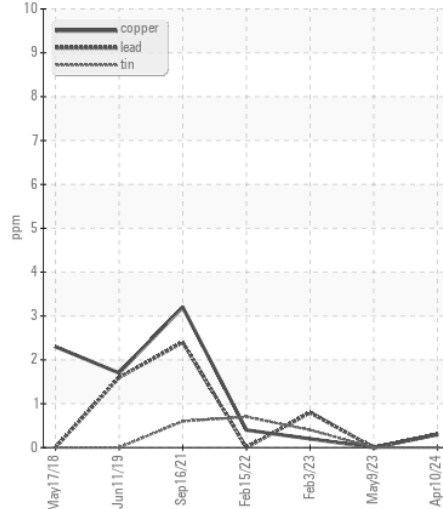
**Viscosity @ 100°C**



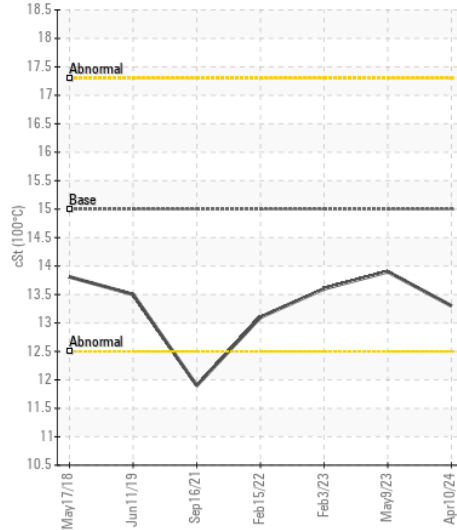
**Ferrous Alloys**



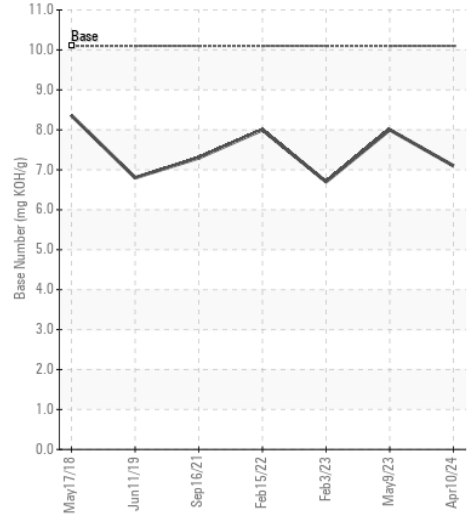
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0909744  
**Lab Number** : 06151547  
**Unique Number** : 10981625  
**Test Package** : FLEET

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

**GUY M TURNER & TURNER TRANSFER**  
 4505 SOUTH HOLDEN ROAD  
 GREENSBORO, NC  
 US 27406

Contact: ROGER HIXSON  
 rhixson@guyturner.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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