



# WEAR CHECK

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**FREIGHTLINER 122SD RTK6770**

Component  
**Diesel Engine**

Fluid  
**{not provided} (--- QTS)**

### RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ARI06147017</b>	ARI06084446	ARI06033093
Sample Date		Client Info		<b>11 Apr 2024</b>	08 Feb 2024	12 Dec 2023
Machine Age	mls	Client Info		<b>13487</b>	9664	8563
Oil Age	mls	Client Info		<b>0</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	<b>5</b>	7	9
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>7</b>	5	9
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>4</b>	5	14
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

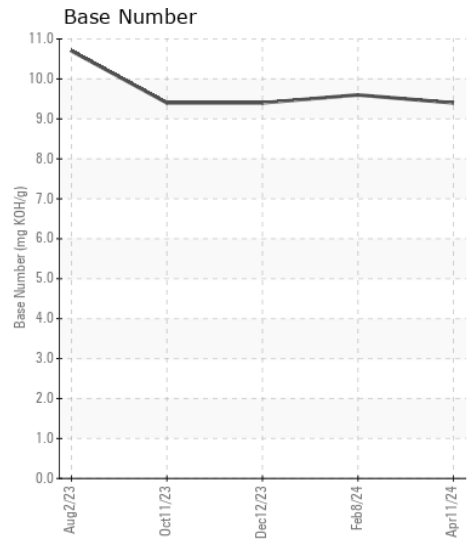
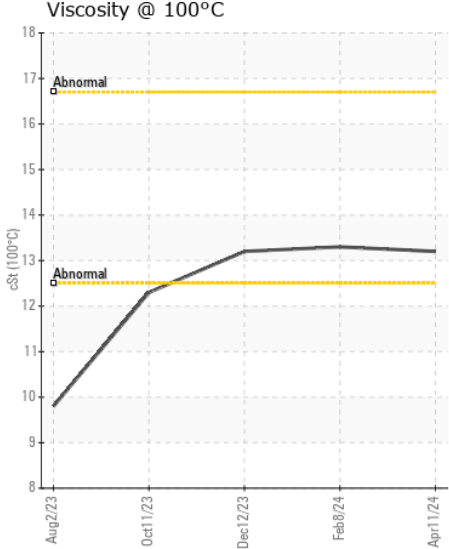
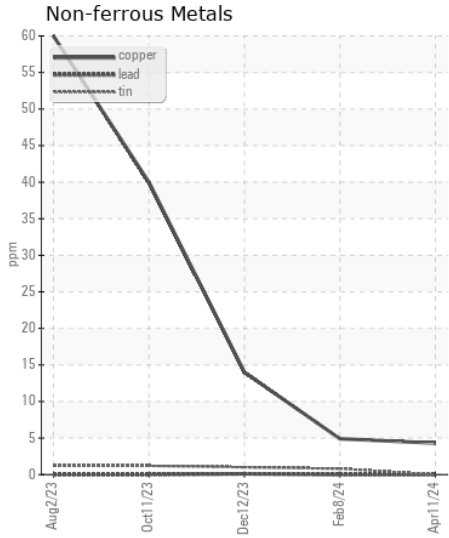
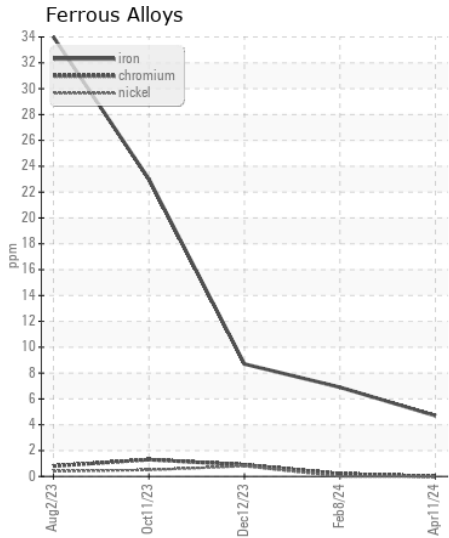
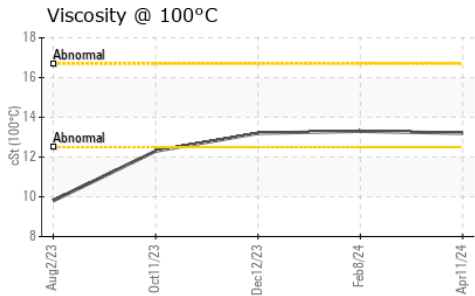
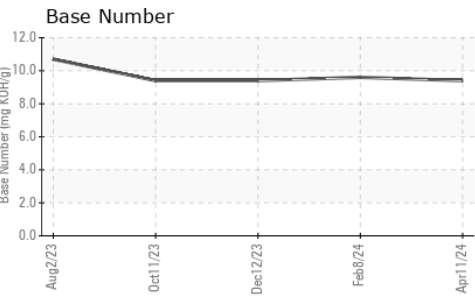
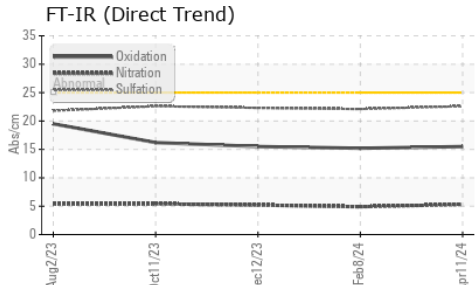
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>3</b>	4	5
Potassium	ppm	ASTM D5185m	>20	<b>17</b>	8	16
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>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.3</b>	4.9	5.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.6</b>	22.1	22.3
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>393</b>	389	328
Barium	ppm	ASTM D5185m		<b>0</b>	0	11
Molybdenum	ppm	ASTM D5185m		<b>124</b>	119	105
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>678</b>	645	548
Calcium	ppm	ASTM D5185m		<b>1689</b>	1515	1306
Phosphorus	ppm	ASTM D5185m		<b>818</b>	734	556
Zinc	ppm	ASTM D5185m		<b>896</b>	863	744
Sulfur	ppm	ASTM D5185m		<b>3161</b>	2567	2485
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.5</b>	15.2	15.5
Base Number (BN)	mg KOH/g	ASTM D2896		<b>9.4</b>	9.6	9.4
Visc @ 100°C	cSt	ASTM D445		<b>13.2</b>	13.3	13.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ARI06147017 **Received** : 12 Apr 2024  
**Lab Number** : 06147017 **Tested** : 15 Apr 2024  
**Unique Number** : 10977095 **Diagnosed** : 15 Apr 2024 - Wes Davis  
**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)