



# WEAR CHECK

## OIL ANALYSIS REPORT

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

Machine Id  
**FREIGHTLINER 35134**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- QTS)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>KL0013222</b>	KL0008512	KL0005506
Sample Date		Client Info		<b>01 Feb 2024</b>	27 Jun 2022	25 Mar 2021
Machine Age	mls	Client Info		<b>251701</b>	246761	207007
Oil Age	mls	Client Info		<b>136804</b>	0	41559
Filter Age	mls	Client Info		<b>0</b>	0	22492
Oil Changed		Client Info		<b>N/A</b>	N/A	Not Changd
Filter Changed		Client Info		<b>N/A</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	<b>4</b>	10	16
Chromium	ppm	ASTM D5185m	>5	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>30	<b>3</b>	4	5
Lead	ppm	ASTM D5185m	>30	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m	>150	<b>2</b>	6	9
Tin	ppm	ASTM D5185m	>5	<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

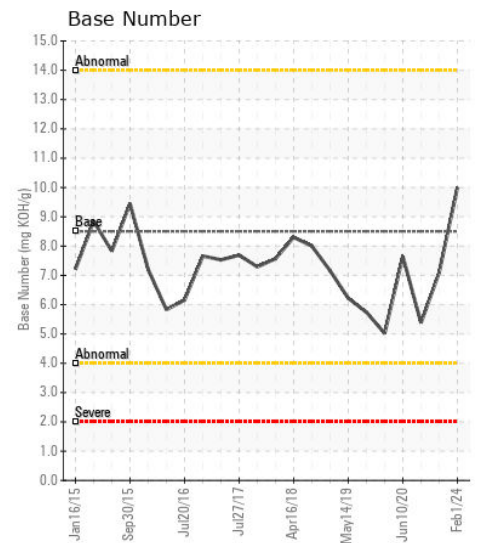
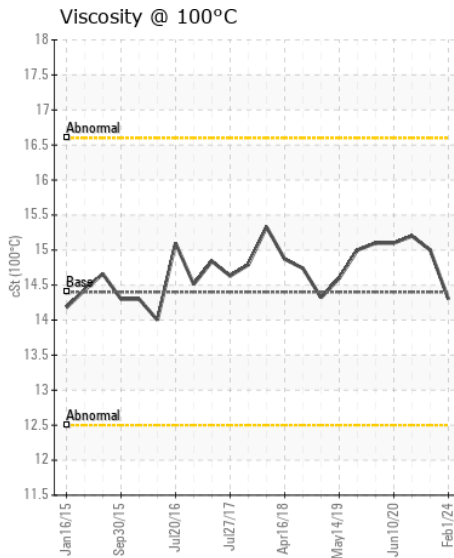
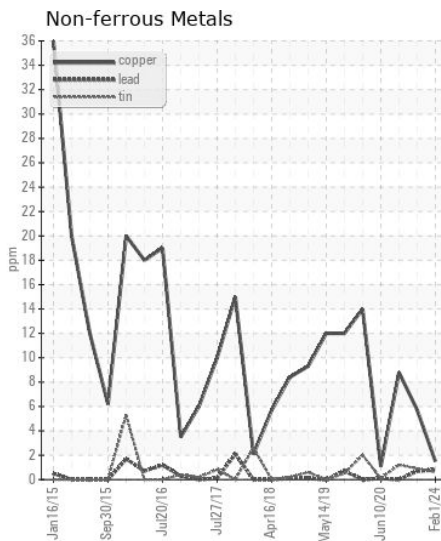
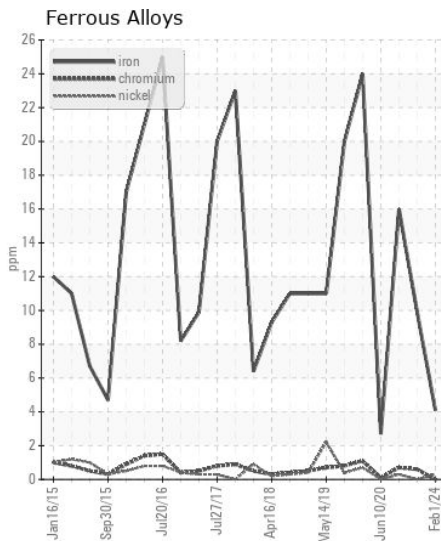
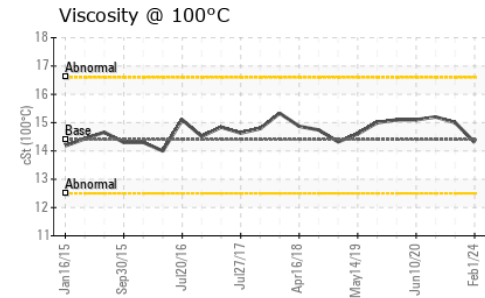
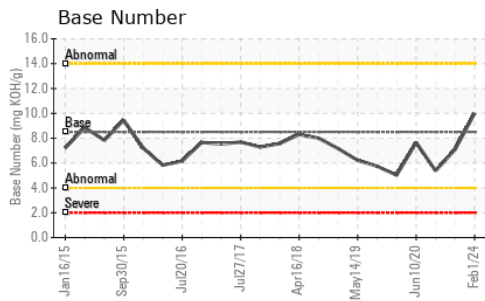
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>6</b>	7	10
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	3	7
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>	0.6	0.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.0</b>	8.5	10.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.2</b>	21.1	26.3
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	>158	<b>1</b>	6	10
Boron	ppm	ASTM D5185m	250	<b>111</b>	6	10
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>62</b>	5	23
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>1095</b>	45	133
Calcium	ppm	ASTM D5185m	3000	<b>958</b>	2407	2427
Phosphorus	ppm	ASTM D5185m	1150	<b>1132</b>	887	853
Zinc	ppm	ASTM D5185m	1350	<b>1317</b>	1086	1055
Sulfur	ppm	ASTM D5185m	4250	<b>3607</b>	4217	2380
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.2</b>	12.5	18.3
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>10.0</b>	7.1	5.38
Visc @ 100°C	cSt	ASTM D445	14.4	<b>14.3</b>	15.0	15.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0013222  
**Lab Number** : 06089452  
**Unique Number** : 10876897  
**Test Package** : FLEET

**Received** : 14 Feb 2024  
**Tested** : 15 Feb 2024  
**Diagnosed** : 16 Feb 2024 - Don Baldrige

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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)