



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**FREIGHTLINER 1229**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0878835	---	---
Sample Date		Client Info		09 Jan 2024	---	---
Machine Age	mls	Client Info		260835	---	---
Oil Age	mls	Client Info		0	---	---
Filter Age	mls	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				NORMAL	---	---

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	17	---	---
Chromium	ppm	ASTM D5185m	>5	2	---	---
Nickel	ppm	ASTM D5185m	>2	0	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>30	1	---	---
Lead	ppm	ASTM D5185m	>30	3	---	---
Copper	ppm	ASTM D5185m	>150	<1	---	---
Tin	ppm	ASTM D5185m	>5	<1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

## CONTAMINATION

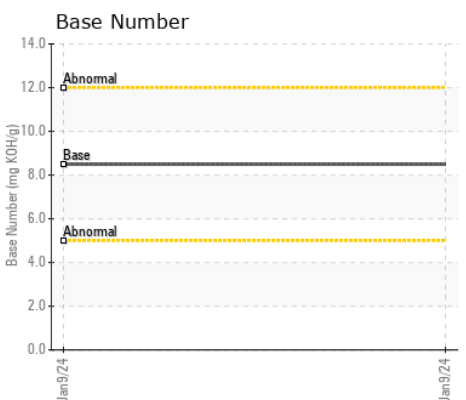
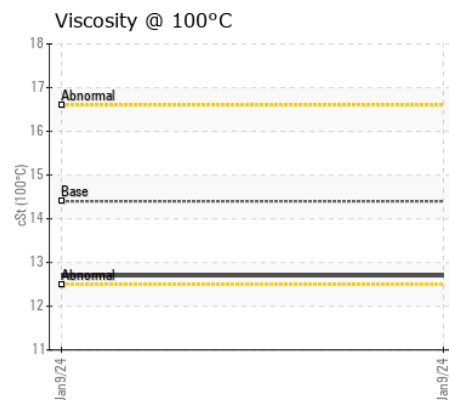
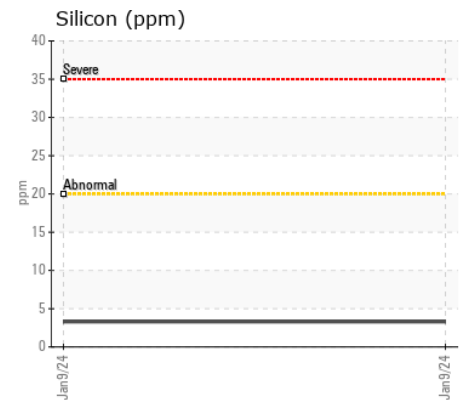
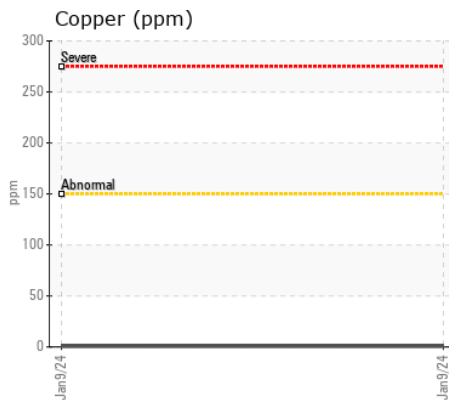
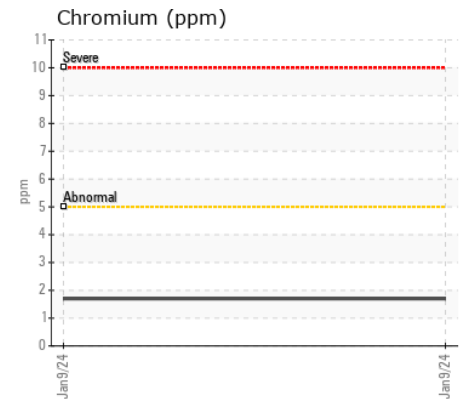
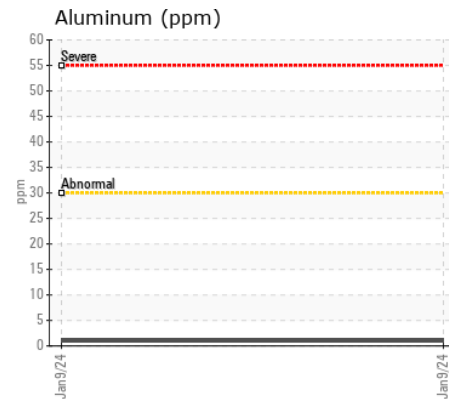
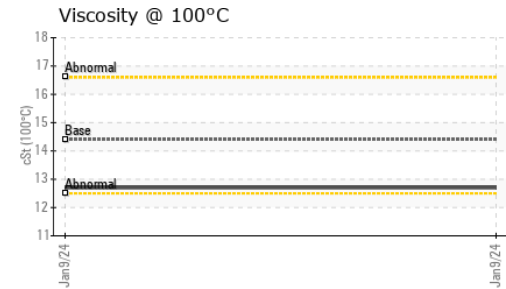
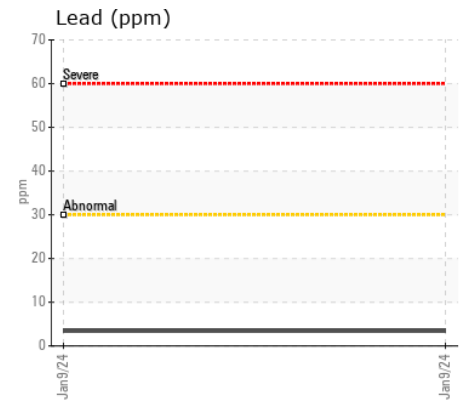
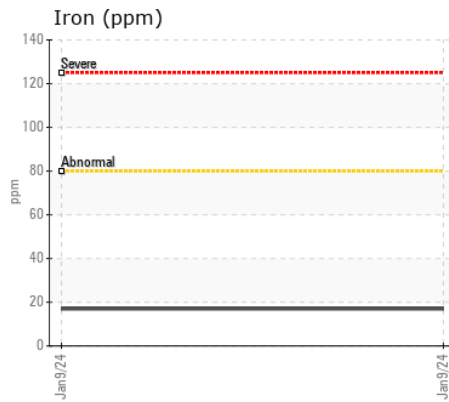
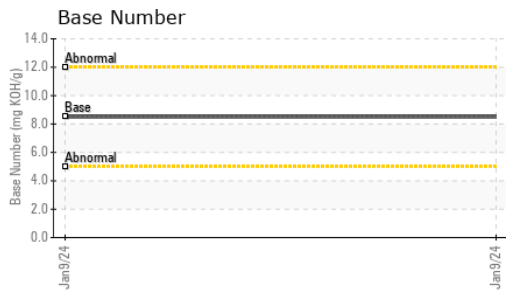
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	3	---	---
Potassium	ppm	ASTM D5185m	>20	<1	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	7.6	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.9	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	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	1	---	---
Boron	ppm	ASTM D5185m	250	4	---	---
Barium	ppm	ASTM D5185m	10	0	---	---
Molybdenum	ppm	ASTM D5185m	100	54	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m	450	957	---	---
Calcium	ppm	ASTM D5185m	3000	1042	---	---
Phosphorus	ppm	ASTM D5185m	1150	999	---	---
Zinc	ppm	ASTM D5185m	1350	1159	---	---
Sulfur	ppm	ASTM D5185m	4250	2945	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.7	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.5	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	12.7	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0878835 **Received** : 31 Jan 2024  
**Lab Number** : 06075411 **Diagnosed** : 01 Feb 2024  
**Unique Number** : 10857502 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**CONCRETE SERVICE CO**  
 161 BUILDERS BLVD  
 FAYETTEVILLE, NC  
 US 28301  
 Contact: Service Manager

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)

T:  
F: