



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
FREIGHTLINER RL-39
Component
Diesel Engine
Fluid
GIBRALTAR 15W/40 SUPER S-3 LX (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0875511	WC0875511	---
Sample Date		Client Info		28 May 2024	28 May 2024	---
Machine Age	hrs	Client Info		18375	18375	---
Oil Age	hrs	Client Info		600	600	---
Filter Age	hrs	Client Info		600	600	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>80	15	16	---
Chromium	ppm	ASTM D5185m	>5	<1	2	---
Nickel	ppm	ASTM D5185m	>2	<1	<1	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	<1	<1	---
Aluminum	ppm	ASTM D5185m	>30	1	3	---
Lead	ppm	ASTM D5185m	>30	0	<1	---
Copper	ppm	ASTM D5185m	>150	3	6	---
Tin	ppm	ASTM D5185m	>5	0	<1	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

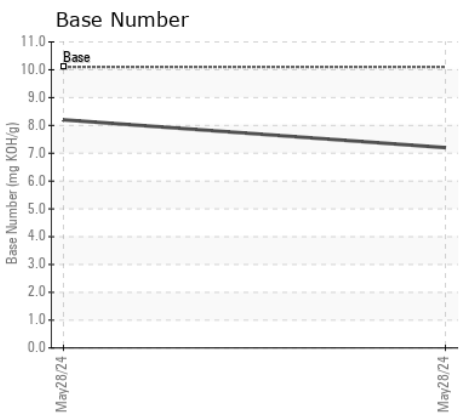
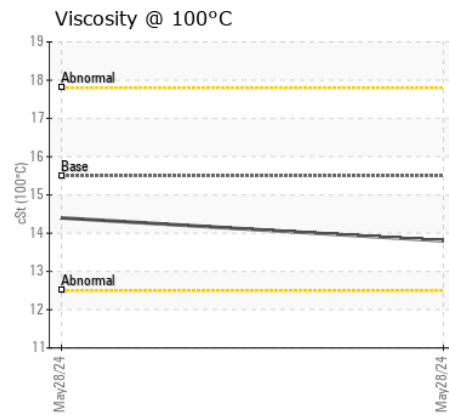
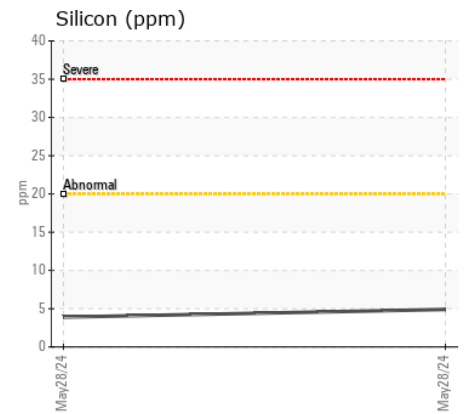
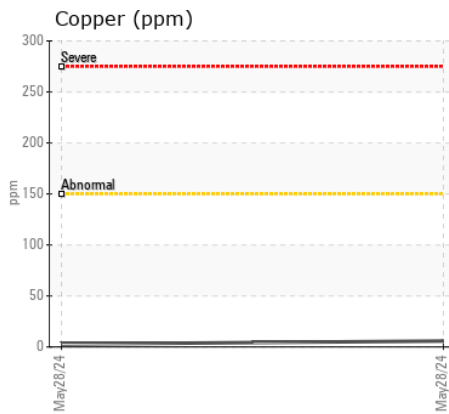
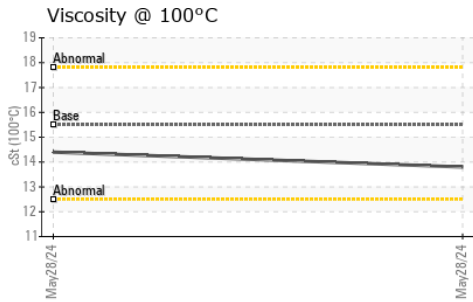
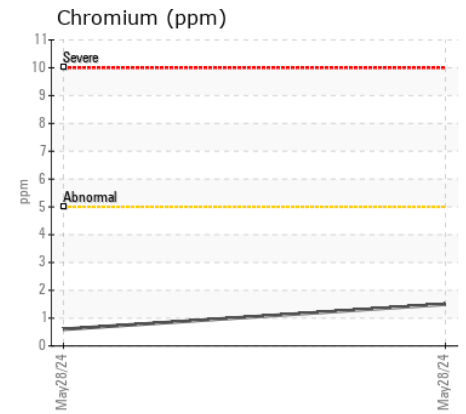
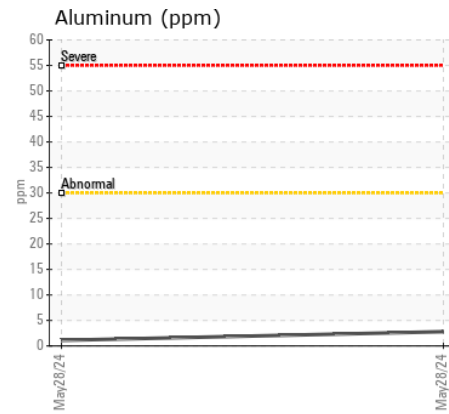
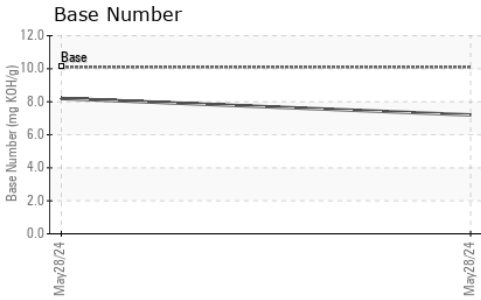
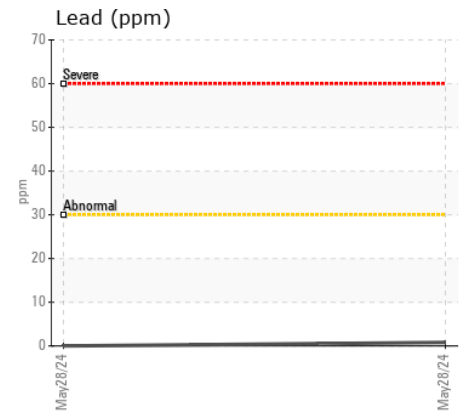
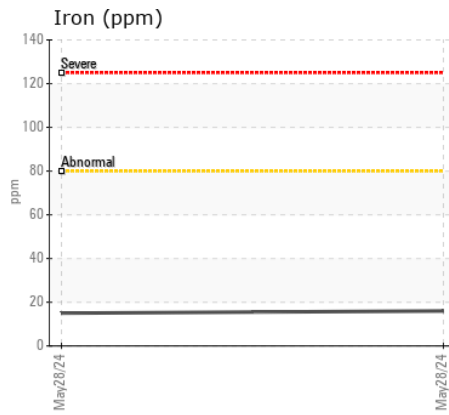
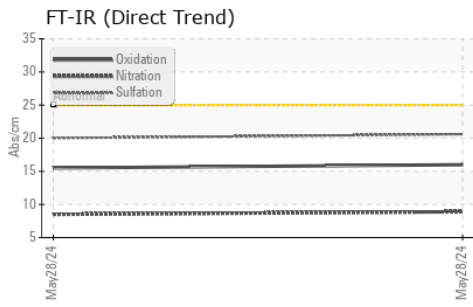
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	4	5	---
Potassium	ppm	ASTM D5185m	>20	<1	2	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.6	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	8.9	8.5	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.6	20.0	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	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		6	2	---
Boron	ppm	ASTM D5185m		5	8	---
Barium	ppm	ASTM D5185m		0	2	---
Molybdenum	ppm	ASTM D5185m	66	79	70	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m	1000	968	919	---
Calcium	ppm	ASTM D5185m	1050	1421	1267	---
Phosphorus	ppm	ASTM D5185m	1150	1122	1068	---
Zinc	ppm	ASTM D5185m	1270	1411	1346	---
Sulfur	ppm	ASTM D5185m		3813	3313	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.0	15.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	7.2	8.2	---
Visc @ 100°C	cSt	ASTM D445	15.5	13.8	14.4	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0875511 **Received** : 28 Jun 2024
Lab Number : 06223194 **Tested** : 28 Jun 2024
Unique Number : 11101391 **Diagnosed** : 28 Jun 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: TBN)

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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