



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
FREIGHTLINER FL70 DRW-1
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (18 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0632533	WCM1394290	---
Sample Date		Client Info		14 May 2024	30 Apr 2023	---
Machine Age	hrs	Client Info		200	0	---
Oil Age	hrs	Client Info		200	300	---
Filter Age	hrs	Client Info		200	300	---
Oil Changed		Client Info		Changed	N/A	---
Filter Changed		Client Info		Changed	N/A	---
Sample Status				NORMAL	NORMAL	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>80	31	15	---
Chromium	ppm	ASTM D5185m	>5	2	<1	---
Nickel	ppm	ASTM D5185m	>2	<1	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m	>3	0	<1	---
Aluminum	ppm	ASTM D5185m	>30	14	3	---
Lead	ppm	ASTM D5185m	>30	2	0	---
Copper	ppm	ASTM D5185m	>150	13	<1	---
Tin	ppm	ASTM D5185m	>5	2	0	---
Vanadium	ppm	ASTM D5185m		0	<1	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

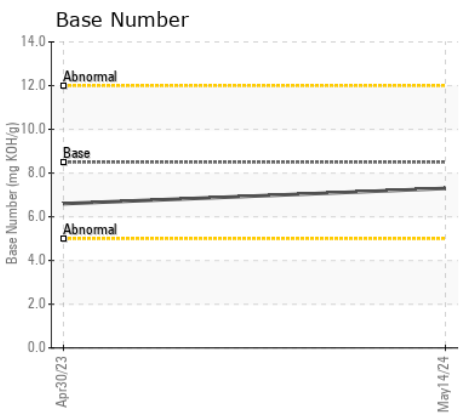
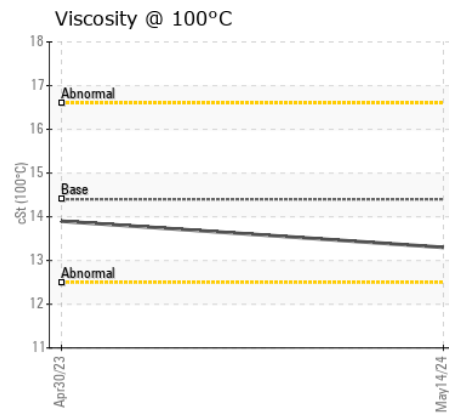
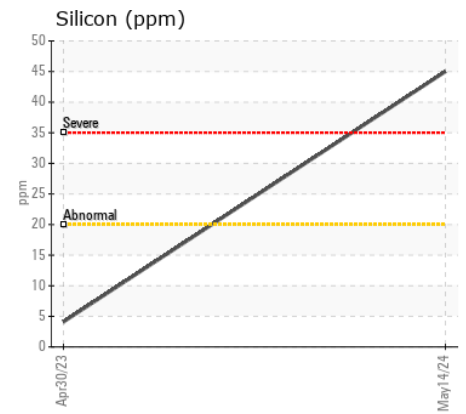
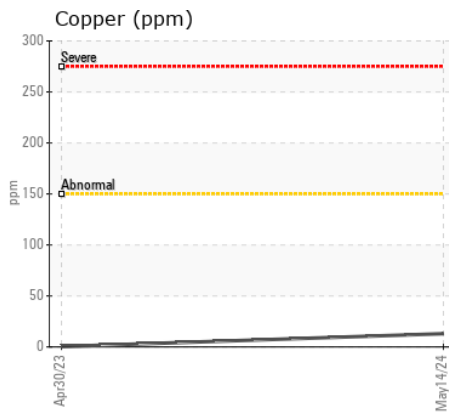
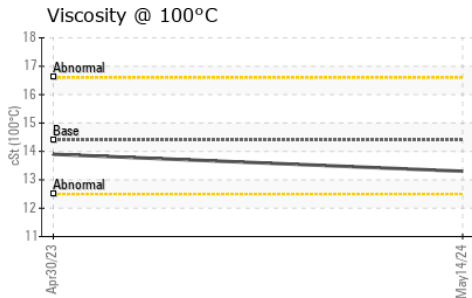
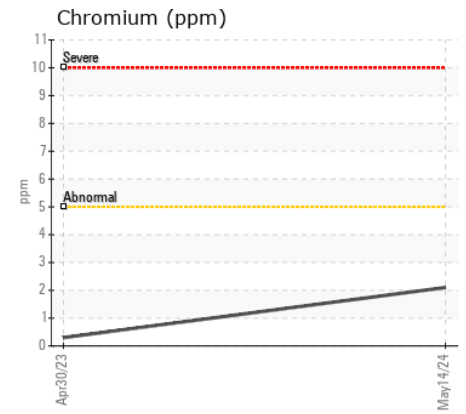
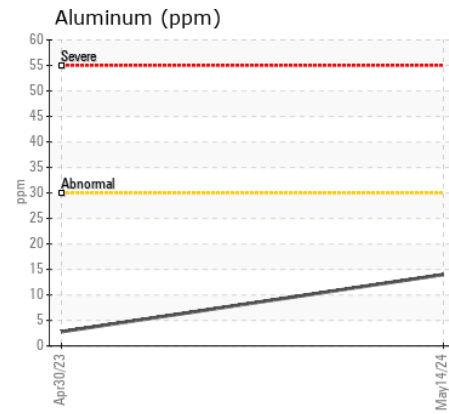
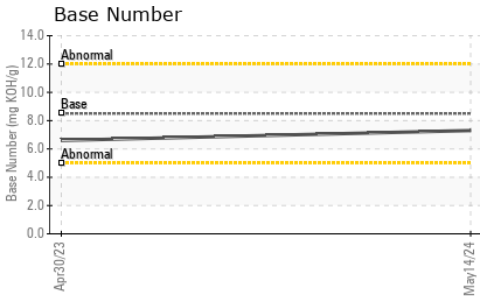
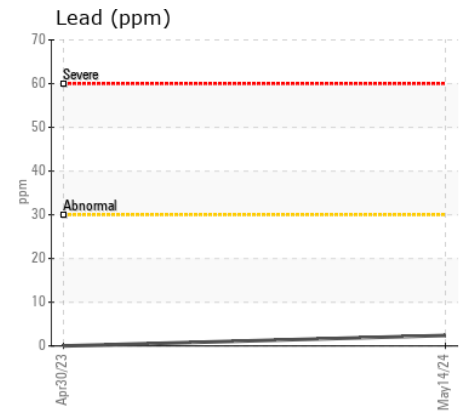
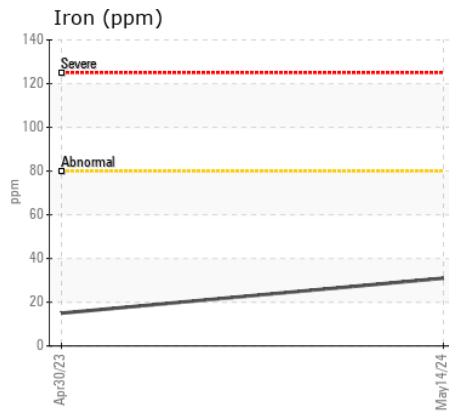
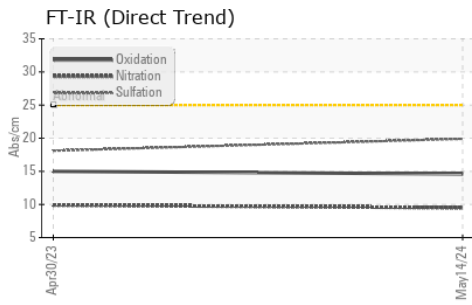
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	45	4	---
Potassium	ppm	ASTM D5185m	>20	6	<1	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.8	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	9.5	9.9	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.9	18.1	---
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	>216	12	2	---
Boron	ppm	ASTM D5185m	250	117	69	---
Barium	ppm	ASTM D5185m	10	0	0	---
Molybdenum	ppm	ASTM D5185m	100	24	4	---
Manganese	ppm	ASTM D5185m		1	<1	---
Magnesium	ppm	ASTM D5185m	450	110	19	---
Calcium	ppm	ASTM D5185m	3000	1930	2584	---
Phosphorus	ppm	ASTM D5185m	1150	949	1127	---
Zinc	ppm	ASTM D5185m	1350	1129	1419	---
Sulfur	ppm	ASTM D5185m	4250	3727	4477	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.6	15.0	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.3	6.6	---
Visc @ 100°C	cSt	ASTM D445	14.4	13.3	13.9	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0632533 **Received** : 17 Jun 2024
Lab Number : 06211282 **Tested** : 18 Jun 2024
Unique Number : 11084146 **Diagnosed** : 18 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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