



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
794M FREIGHTLINER M2106
Component
Diesel Engine
Fluid
TIER 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0115279	GFL0072932	GFL0072885
Sample Date		Client Info		17 Jun 2024	03 Apr 2023	10 Feb 2023
Machine Age	hrs	Client Info		10988	10102	9823
Oil Age	hrs	Client Info		55	279	700
Filter Age	hrs	Client Info		55	279	700
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	20	11	21
Chromium	ppm	ASTM D5185m	>20	1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	5	0	2
Lead	ppm	ASTM D5185m	>40	<1	0	<1
Copper	ppm	ASTM D5185m	>330	1	<1	<1
Tin	ppm	ASTM D5185m	>15	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

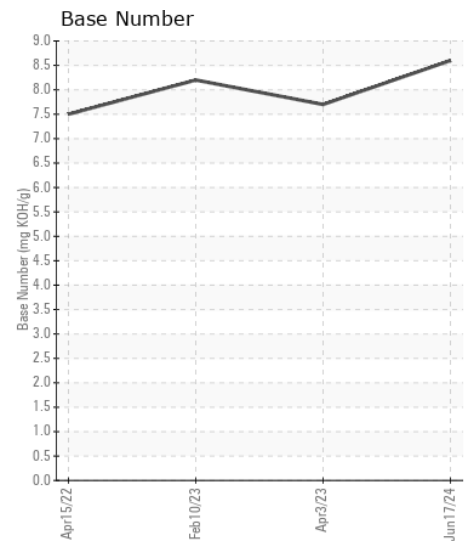
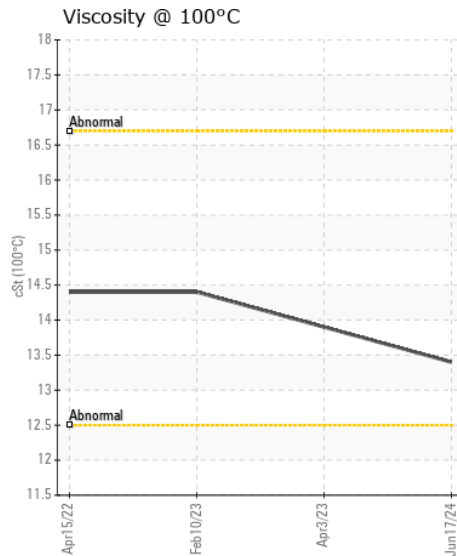
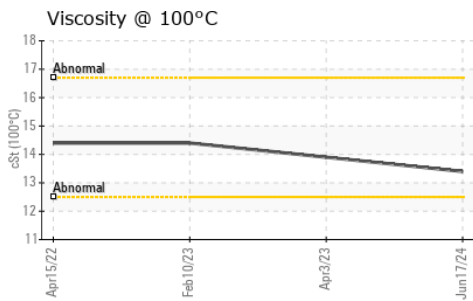
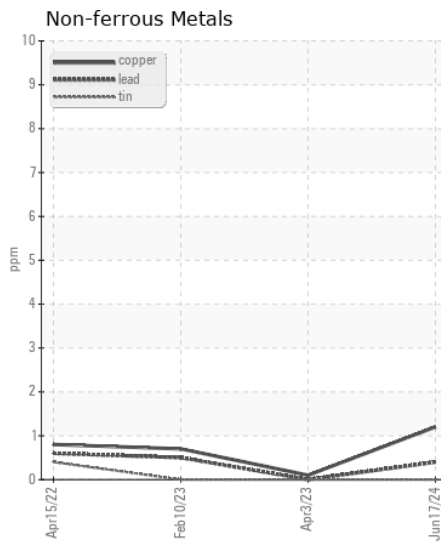
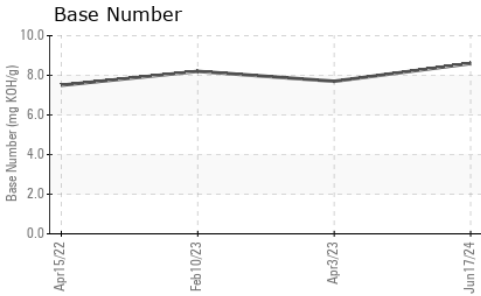
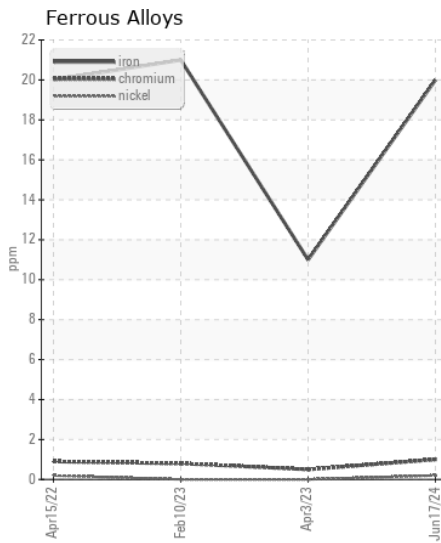
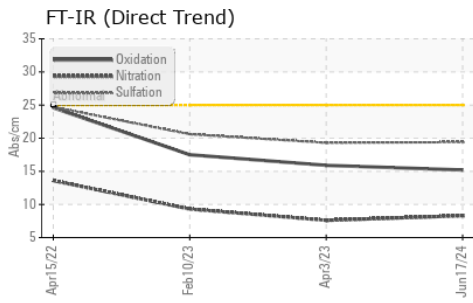
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	3	3
Potassium	ppm	ASTM D5185m	>20	9	<1	3
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.4	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.3	7.6	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.4	19.3	20.6
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	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		7	4	2
Boron	ppm	ASTM D5185m		10	4	5
Barium	ppm	ASTM D5185m		0	2	0
Molybdenum	ppm	ASTM D5185m		59	56	62
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		877	878	901
Calcium	ppm	ASTM D5185m		1109	1047	1135
Phosphorus	ppm	ASTM D5185m		970	992	1035
Zinc	ppm	ASTM D5185m		1228	1217	1255
Sulfur	ppm	ASTM D5185m		2877	2900	3034
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.2	15.9	17.5
Base Number (BN)	mg KOH/g	ASTM D2896		8.6	7.7	8.2
Visc @ 100°C	cSt	ASTM D445		13.4	13.9	14.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0115279
Lab Number : 06216468
Unique Number : 11089332
Test Package : FLEET

Received : 20 Jun 2024
Tested : 22 Jun 2024
Diagnosed : 22 Jun 2024 - Wes Davis

GFL Environmental - 642- Grand Rapids Hauling
 5826 Alden Nash Ave SE
 Lowell, MI
 US 49331

Contact: Chad Crosby
 ccrosby@gflenv.com

T: (616)299-8425

F:

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)