



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
(YA169099)
Machine Id
832003
Component
Natural Gas Engine
Fluid
RDL-3647 (5 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0112920	GFL0079624	GFL0098114
Sample Date		Client Info		26 Feb 2024	22 Feb 2024	10 Nov 2023
Machine Age	hrs	Client Info		645	645	645
Oil Age	hrs	Client Info		752	752	436
Filter Age	hrs	Client Info		0	0	436
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>50	13	11	9
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>9	2	2	2
Lead	ppm	ASTM D5185m	>30	0	2	1
Copper	ppm	ASTM D5185m	>35	1	1	1
Tin	ppm	ASTM D5185m	>4	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

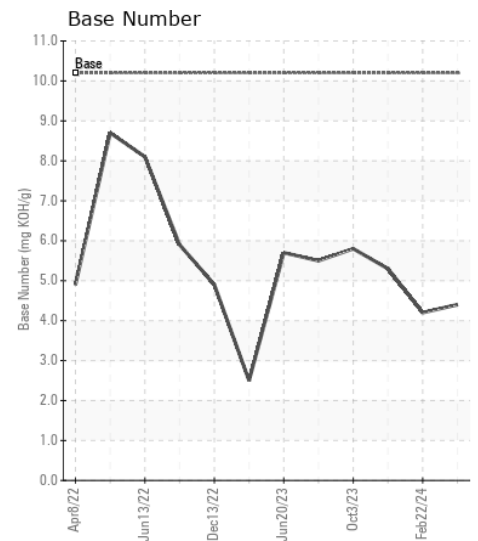
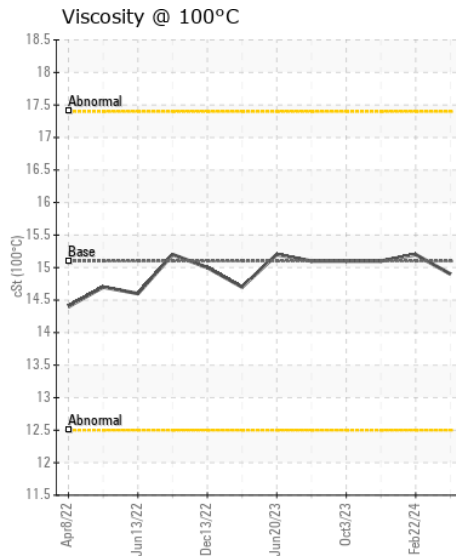
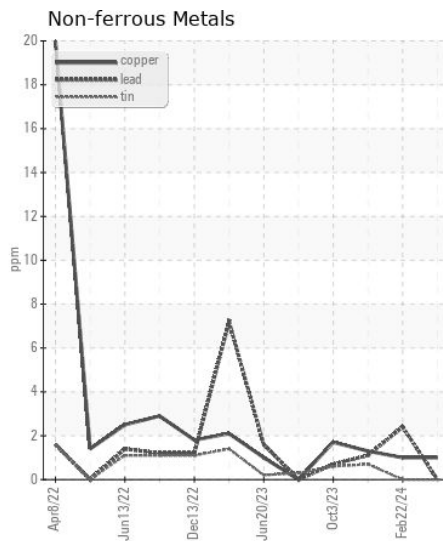
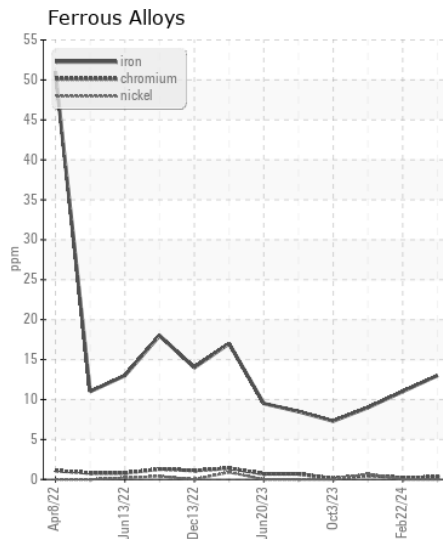
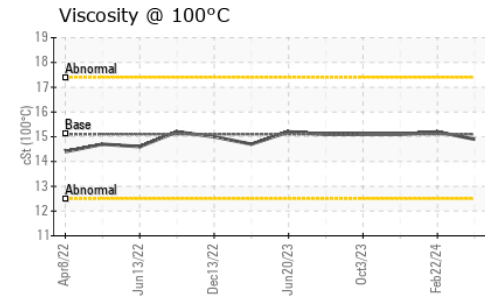
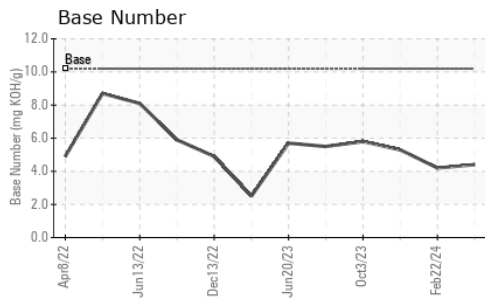
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>+100	4	4	5
Potassium	ppm	ASTM D5185m	>20	16	4	4
Water		WC Method	>0.1	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	0	0
Nitration	Abs/cm	*ASTM D7624	>20	11.8	11.5	10.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.3	24.4	20.9
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	>0.1	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	5	2
Boron	ppm	ASTM D5185m	50	8	10	9
Barium	ppm	ASTM D5185m	5	8	8	0
Molybdenum	ppm	ASTM D5185m	50	55	55	56
Manganese	ppm	ASTM D5185m	0	0	0	<1
Magnesium	ppm	ASTM D5185m	560	533	547	577
Calcium	ppm	ASTM D5185m	1510	1504	1521	1633
Phosphorus	ppm	ASTM D5185m	780	725	745	724
Zinc	ppm	ASTM D5185m	870	949	953	988
Sulfur	ppm	ASTM D5185m	2040	2433	2435	2540
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.4	20.4	18.3
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	4.4	4.2	5.3
Visc @ 100°C	cSt	ASTM D445	15.1	14.9	15.2	15.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0112920
Lab Number : 06100019
Unique Number : 10898249
Test Package : FLEET

Received : 26 Feb 2024
Tested : 27 Feb 2024
Diagnosed : 27 Feb 2024 - Wes Davis

GFL Environmental - 017 - Durham
 148 Stone Park Court
 Durham, NC
 US 27703

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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)