



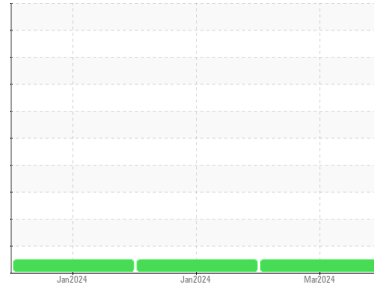
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
934034
Component
Natural Gas Engine
Fluid
{not provided} (--- GAL)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL011839	GFL0108311	GFL0108344
Sample Date	Client Info		01 Mar 2024	24 Jan 2024	04 Jan 2024
Machine Age	hrs	Client Info	586	440	280
Oil Age	hrs	Client Info	586	440	280
Oil Changed	Client Info		Not Chngd	Not Chngd	N/A
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	61	37	30
Chromium	ppm	ASTM D5185m >4	<1	<1	<1
Nickel	ppm	ASTM D5185m >2	1	<1	<1
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m >3	<1	0	0
Aluminum	ppm	ASTM D5185m >9	7	2	2
Lead	ppm	ASTM D5185m >30	<1	1	<1
Copper	ppm	ASTM D5185m >35	11	17	16
Tin	ppm	ASTM D5185m >4	1	<1	<1
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	6	14
Barium	ppm	ASTM D5185m	6	2	2
Molybdenum	ppm	ASTM D5185m	56	52	51
Manganese	ppm	ASTM D5185m	15	9	8
Magnesium	ppm	ASTM D5185m	799	820	806
Calcium	ppm	ASTM D5185m	1158	1253	1164
Phosphorus	ppm	ASTM D5185m	746	704	788
Zinc	ppm	ASTM D5185m	932	952	950
Sulfur	ppm	ASTM D5185m	2035	2398	2398

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	30	32	29
Sodium	ppm	ASTM D5185m	4	4	3
Potassium	ppm	ASTM D5185m >20	19	3	3

INFRA-RED

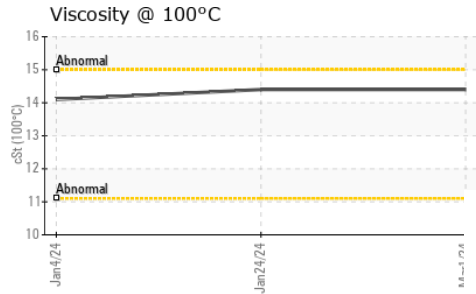
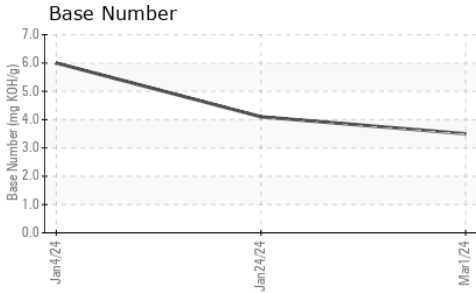
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0	0	0.1
Nitration	Abs/cm	*ASTM D7624 >20	12.6	12.2	10.7
Sulfation	Abs/.1mm	*ASTM D7415 >30	24.9	22.0	19.8

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	22.7	20.3	18.5
Base Number (BN)	mg KOH/g	ASTM D2896	3.5	4.1	6.0



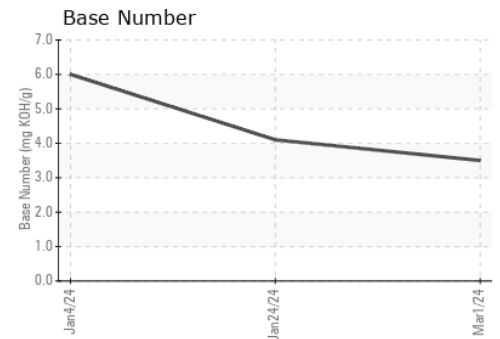
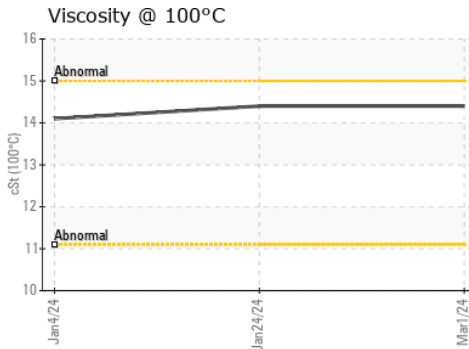
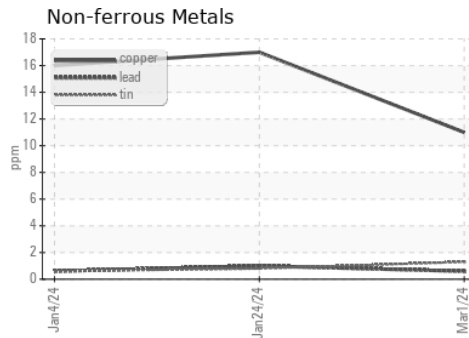
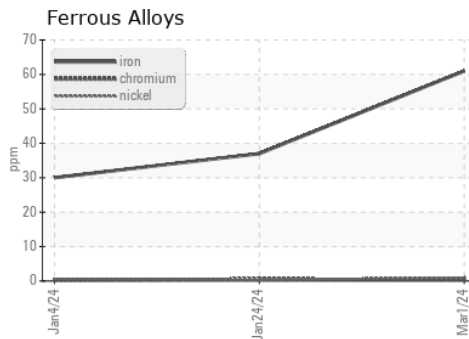
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	14.4	14.1

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0111839
Lab Number : 06109241
Unique Number : 10912738
Test Package : FLEET

Received : 05 Mar 2024
Tested : 06 Mar 2024
Diagnosed : 06 Mar 2024 - Wes Davis

GFL Environmental - 652 - Fredericksburg Hauling
 10954 Houser Drive
 Fredericksburg, VA
 US 22408
 Contact: WILLIAM MILO
 wmiло@gflenv.com

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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F: