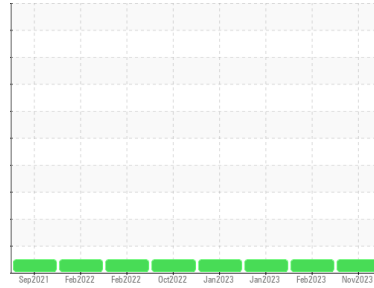




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
945012
 Component
Natural Gas Engine
 Fluid
RDL-3647 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

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	GFL0084658	GFL0068548	GFL0068570
Sample Date	Client Info	06 Nov 2023	08 Feb 2023	21 Jan 2023
Machine Age	hrs Client Info	0	18107	156
Oil Age	hrs Client Info	0	0	0
Oil Changed	Client Info	Changed	Not Changd	Not Changd
Sample Status		NORMAL	NORMAL	NORMAL

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >50	13	15	5
Chromium	ppm ASTM D5185m >4	0	1	<1
Nickel	ppm ASTM D5185m >2	0	<1	<1
Titanium	ppm ASTM D5185m	0	<1	0
Silver	ppm ASTM D5185m >3	0	0	0
Aluminum	ppm ASTM D5185m >9	0	1	<1
Lead	ppm ASTM D5185m >30	0	1	<1
Copper	ppm ASTM D5185m >35	0	3	3
Tin	ppm ASTM D5185m >4	0	1	<1
Vanadium	ppm ASTM D5185m	0	0	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 50	26	8	36
Barium	ppm ASTM D5185m 5	0	0	0
Molybdenum	ppm ASTM D5185m 50	52	57	53
Manganese	ppm ASTM D5185m 0	0	2	<1
Magnesium	ppm ASTM D5185m 560	692	569	594
Calcium	ppm ASTM D5185m 1510	1663	1705	1783
Phosphorus	ppm ASTM D5185m 780	888	712	813
Zinc	ppm ASTM D5185m 870	1092	993	1040
Sulfur	ppm ASTM D5185m 2040	2702	2517	2897

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >+100	14	6	5
Sodium	ppm ASTM D5185m	6	7	3
Potassium	ppm ASTM D5185m >20	0	2	<1

INFRA-RED

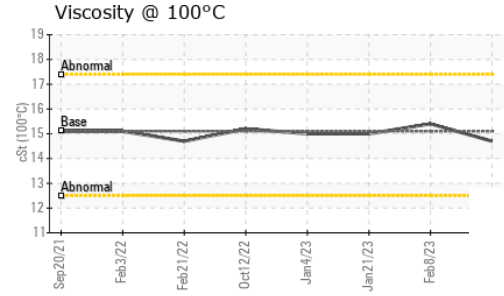
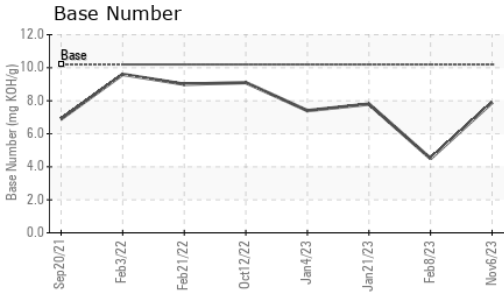
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844	0	0.1	0.1
Nitration	Abs/cm *ASTM D7624 >20	8.0	12.7	8.0
Sulfation	Abs/.1mm *ASTM D7415 >30	19.3	24.8	19.7

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	16.3	20.9	16.5
Base Number (BN)	mg KOH/g ASTM D2896 10.2	7.9	4.5	7.8



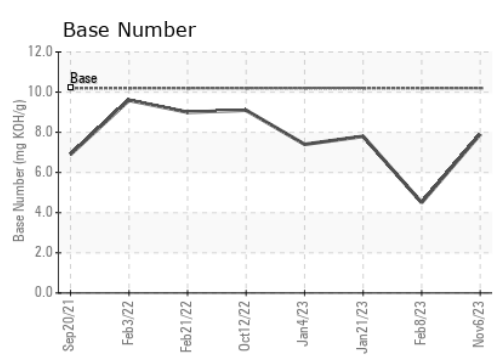
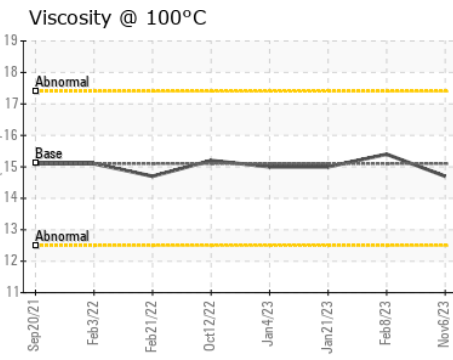
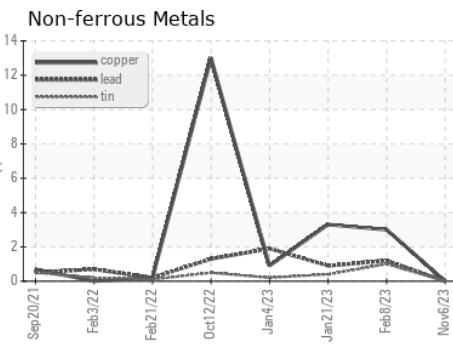
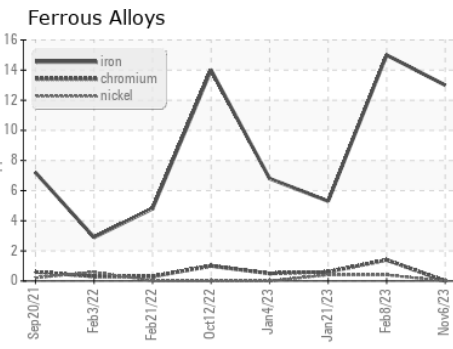
OIL ANALYSIS REPORT



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	15.1	14.7	15.4	15.0

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0084658 **Received** : 09 Nov 2023
Lab Number : **06003473** **Diagnosed** : 10 Nov 2023
Unique Number : 10737235 **Diagnostician** : Wes Davis
Test Package : FLEET

GFL Environmental - 856 - Houston South
 8515 Highway 6 South
 Houston, TX
 US 77083
 Contact: Gino Griego

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: