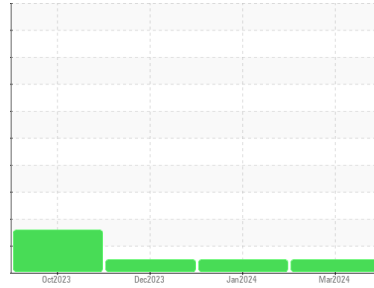




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
358054

Component
Gasoline Engine

Fluid
PETRO CANADA SUPREME™ SYNTHETIC BLEND 5W20 (--- 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		GFL0114159	GFL0108126	GFL0102536
Sample Date	Client Info		13 Mar 2024	23 Jan 2024	05 Dec 2023
Machine Age	mls	Client Info	347254	341229	334700
Oil Age	mls	Client Info	341229	0	0
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>4.0	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >150	15	16	19
Chromium	ppm	ASTM D5185m >20	<1	1	1
Nickel	ppm	ASTM D5185m >5	0	<1	1
Titanium	ppm	ASTM D5185m	0	<1	<1
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >40	2	3	5
Lead	ppm	ASTM D5185m >50	0	1	<1
Copper	ppm	ASTM D5185m >155	2	2	3
Tin	ppm	ASTM D5185m >10	0	<1	<1
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	0	0	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	19	18	0
Barium	ppm	ASTM D5185m	0	0	12
Molybdenum	ppm	ASTM D5185m	78	73	55
Manganese	ppm	ASTM D5185m	0	<1	<1
Magnesium	ppm	ASTM D5185m	602	587	811
Calcium	ppm	ASTM D5185m	1094	961	910
Phosphorus	ppm	ASTM D5185m 770	768	747	788
Zinc	ppm	ASTM D5185m	870	835	1098
Sulfur	ppm	ASTM D5185m 2690	3435	2711	2328

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	24	21	16
Sodium	ppm	ASTM D5185m >400	37	32	24
Potassium	ppm	ASTM D5185m >20	4	3	5

INFRA-RED

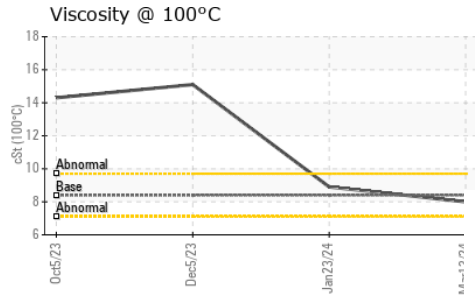
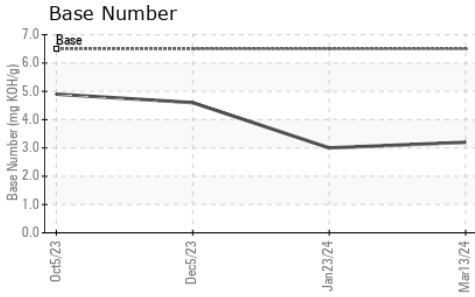
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0.1	0	0.1
Nitration	Abs/cm	*ASTM D7624 >20	10.7	11.2	13.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	24.2	26.2	28.2

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	17.0	18.3	25.7
Base Number (BN)	mg KOH/g	ASTM D2896 6.5	3.2	3.0	4.6



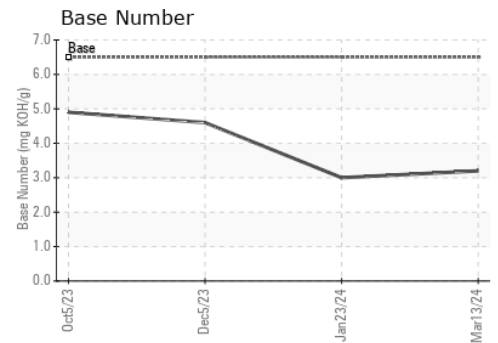
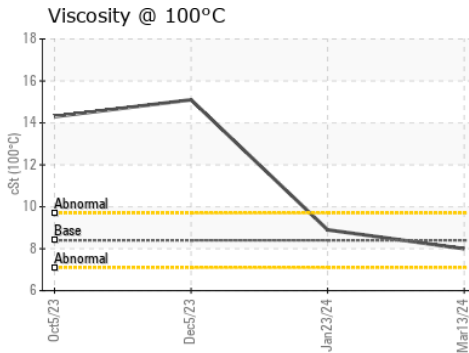
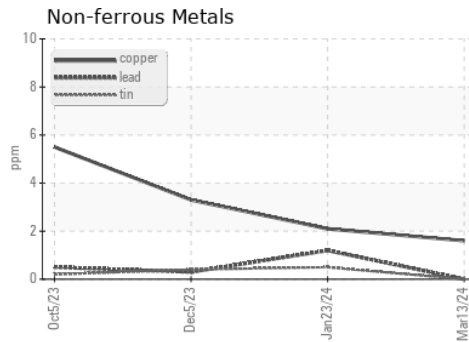
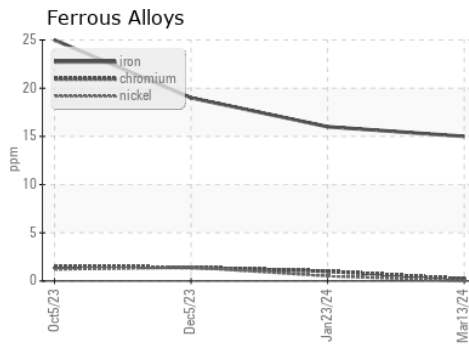
OIL ANALYSIS REPORT



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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445 8.4	8.0	8.9	15.1

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0114159
Lab Number : **06135477**
Unique Number : 10954942
Test Package : FLEET

Received : 01 Apr 2024
Tested : 02 Apr 2024
Diagnosed : 02 Apr 2024 - Wes Davis

GFL Environmental - 837 - Harrison TS
 22820 S State Route 291
 Harrisonville, MO
 US 64701
 Contact: JOHNNY PEREZ
 johnny.perez@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)

T:
F: