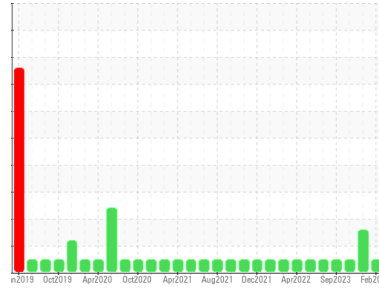




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
(P663812)
 Machine Id
10890C

Component
Diesel Engine
 Fluid
PETRO CANADA DURON GEO LD 15W40 (11 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		GFL0110379	GFL0096915	GFL0069749
Sample Date	Client Info		15 Feb 2024	08 Feb 2024	02 Jan 2024
Machine Age	hrs	Client Info	13641	13612	13485
Oil Age	hrs	Client Info	29	12564	13077
Oil Changed	Client Info		Not Changed	Changed	Not Changed
Sample Status			NORMAL	ABNORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >90	6	51	21
Chromium	ppm	ASTM D5185m >20	1	5	2
Nickel	ppm	ASTM D5185m >2	<1	2	<1
Titanium	ppm	ASTM D5185m >2	<1	<1	<1
Silver	ppm	ASTM D5185m >2	<1	0	0
Aluminum	ppm	ASTM D5185m >20	1	5	3
Lead	ppm	ASTM D5185m >40	1	7	5
Copper	ppm	ASTM D5185m >330	<1	2	2
Tin	ppm	ASTM D5185m >15	<1	1	<1
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	<1	<1	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	41	10	6
Barium	ppm	ASTM D5185m 5	0	3	18
Molybdenum	ppm	ASTM D5185m 50	53	78	62
Manganese	ppm	ASTM D5185m 0	<1	2	<1
Magnesium	ppm	ASTM D5185m 560	593	802	602
Calcium	ppm	ASTM D5185m 1510	1393	1825	1544
Phosphorus	ppm	ASTM D5185m 780	756	955	864
Zinc	ppm	ASTM D5185m 870	932	1276	979
Sulfur	ppm	ASTM D5185m 2040	2724	2664	2739

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	9	▲ 46	24
Sodium	ppm	ASTM D5185m	2	9	7
Potassium	ppm	ASTM D5185m >20	2	4	4

INFRA-RED

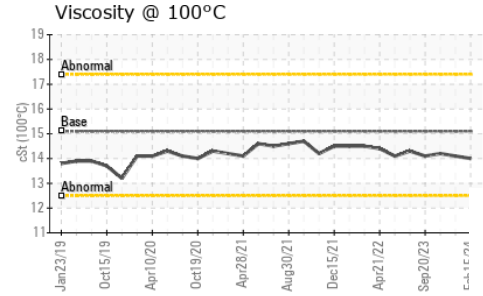
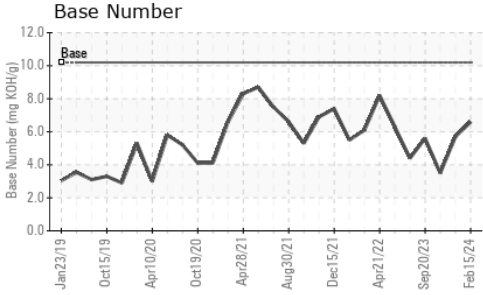
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >6	0.1	0.1	0
Nitration	Abs/cm	*ASTM D7624 >20	6.0	13.3	11.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	16.9	25.4	26.2

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	12.9	20.1	20.7
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	6.6	5.7	3.5



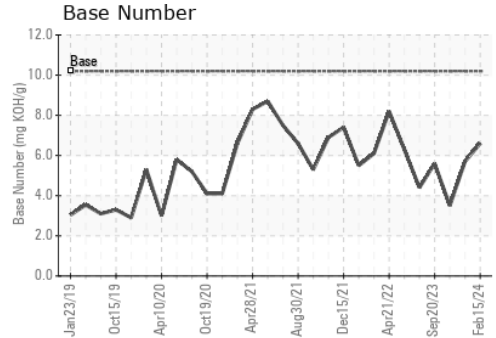
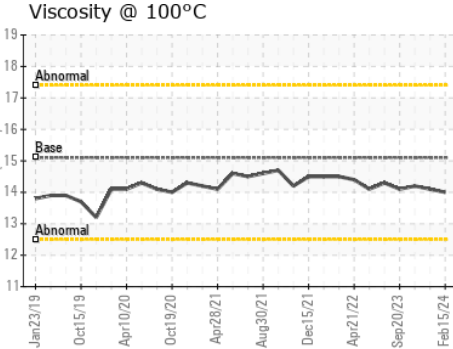
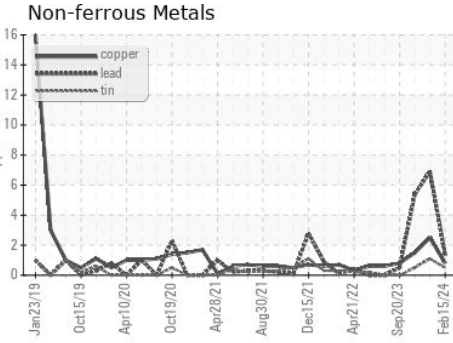
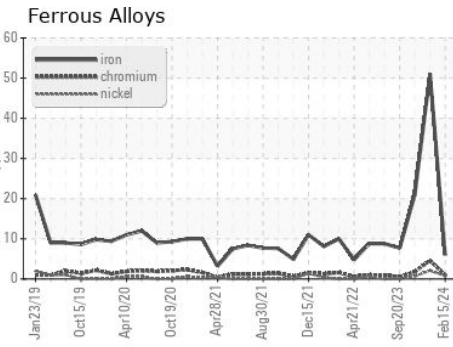
OIL ANALYSIS REPORT



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	15.1	14.0	14.1

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0110379
Lab Number : 06092154
Unique Number : 10885007
Test Package : FLEET

Received : 16 Feb 2024
Tested : 19 Feb 2024
Diagnosed : 19 Feb 2024 - Wes Davis

GFL Environmental - 031 - Greenville/Spartanburg
 1635 Antioch Church Rd
 Piedmont, SC
 US 29673
 Contact: TECHNICIAN ACCOUNT
 catherine.anastasio@wearcheck.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: