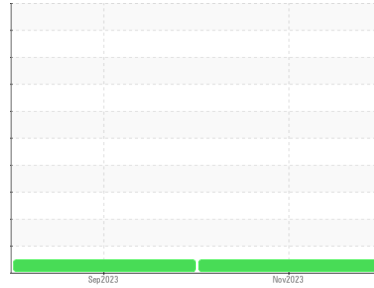




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
834015

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

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		GFL0098674	GFL0090649	---
Sample Date	Client Info		01 Nov 2023	04 Sep 2023	---
Machine Age	hrs	Client Info	335	166	---
Oil Age	hrs	Client Info	0	0	---
Oil Changed	Client Info		N/A	Not Chngd	---
Sample Status			NORMAL	NORMAL	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	43	12	---
Chromium	ppm	ASTM D5185m >4	<1	<1	---
Nickel	ppm	ASTM D5185m >2	<1	0	---
Titanium	ppm	ASTM D5185m	<1	0	---
Silver	ppm	ASTM D5185m >3	0	0	---
Aluminum	ppm	ASTM D5185m >9	4	3	---
Lead	ppm	ASTM D5185m >30	2	1	---
Copper	ppm	ASTM D5185m >35	15	2	---
Tin	ppm	ASTM D5185m >4	1	<1	---
Vanadium	ppm	ASTM D5185m	0	0	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	13	51	---
Barium	ppm	ASTM D5185m 5	0	<1	---
Molybdenum	ppm	ASTM D5185m 50	51	51	---
Manganese	ppm	ASTM D5185m 0	9	1	---
Magnesium	ppm	ASTM D5185m 560	765	628	---
Calcium	ppm	ASTM D5185m 1510	1163	1485	---
Phosphorus	ppm	ASTM D5185m 780	704	783	---
Zinc	ppm	ASTM D5185m 870	926	972	---
Sulfur	ppm	ASTM D5185m 2040	2267	2983	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	30	21	---
Sodium	ppm	ASTM D5185m	4	3	---
Potassium	ppm	ASTM D5185m >20	5	1	---

INFRA-RED

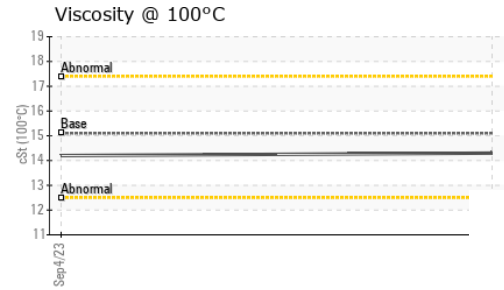
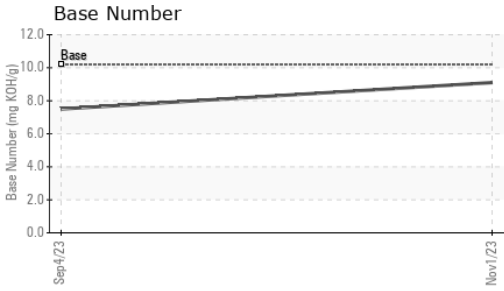
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0.1	0	---
Nitration	Abs/cm	*ASTM D7624 >20	6.9	7.9	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.0	19.9	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	14.8	16.7	---
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	9.1	7.5	---



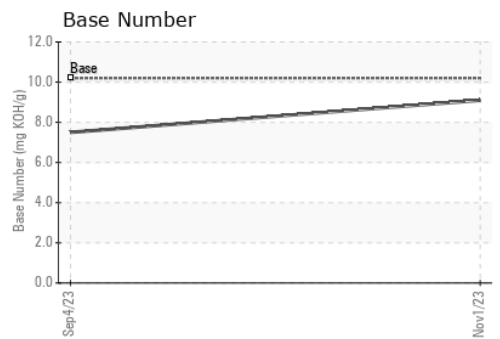
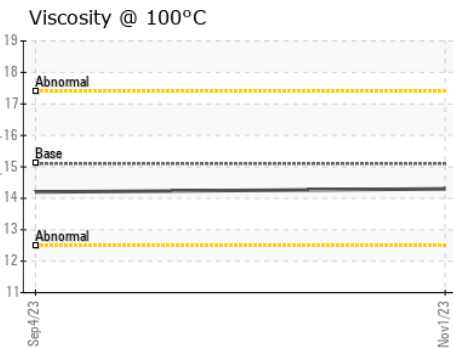
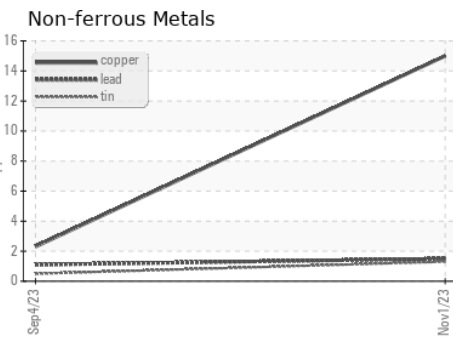
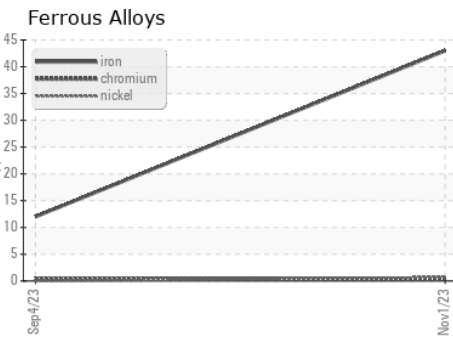
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.3	14.2

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0098674 **Received** : 13 Nov 2023
Lab Number : **06006212** **Diagnosed** : 14 Nov 2023
Unique Number : 10739974 **Diagnostician** : Wes Davis
Test Package : FLEET

GFL Environmental - 836 - Kansas City Hauling
 7801 East Truman Road
 Kansas City, MO
 US 64126
 Contact: Robert Hart
 rhart@gflenv.com
 T: (580)461-1509
 F:

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)