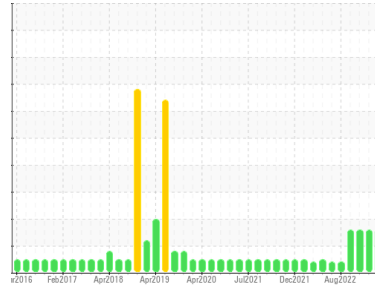




PROBLEM SUMMARY

Sample Rating Trend



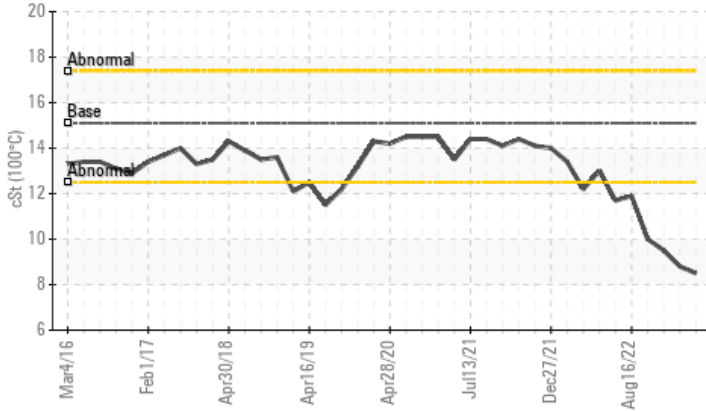
DEGRADATION



Machine Id
3580C
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON GEO LD 15W40 (48 QTS)

COMPONENT CONDITION SUMMARY

▲ Viscosity @ 100°C



RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	▲ 0.0	▲ 1.7	▲ 0.3
Visc @ 100°C	cSt	ASTM D445	15.1	▲ 8.5	▲ 8.8	▲ 9.5

Customer Id: GFL001
 Sample No.: GFL0094734
 Lab Number: 05981054
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

21 Sep 2023 Diag: Jonathan Hester

DEGRADATION



The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN level is low. Confirm oil type.

[view report](#)



17 Apr 2023 Diag: Don Baldrige

DEGRADATION



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN level is low. Confirm oil type.

[view report](#)



08 Dec 2022 Diag: Don Baldrige

DEGRADATION



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN level is low. Confirm oil type.

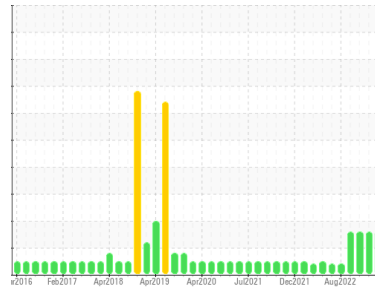
[view report](#)





OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION



Machine Id
3580C

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (48 QTS)

DIAGNOSIS

Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The oil viscosity is lower than normal. The BN level is low. Confirm oil type.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0094734	GFL0056742	GFL0056680
Sample Date	Client Info	14 Oct 2023	21 Sep 2023	17 Apr 2023
Machine Age	hrs	4750	4557	3474
Oil Age	hrs	0	0	1034
Oil Changed	Client Info	N/A	Changed	Changed
Sample Status		ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	13	12	10
Chromium	ppm	ASTM D5185m >4	1	1	2
Nickel	ppm	ASTM D5185m >2	<1	<1	1
Titanium	ppm	ASTM D5185m	0	<1	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >9	2	6	3
Lead	ppm	ASTM D5185m >30	3	3	11
Copper	ppm	ASTM D5185m >35	<1	<1	2
Tin	ppm	ASTM D5185m >4	<1	<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 50	17	20	20
Barium	ppm	ASTM D5185m 5	0	0	0
Molybdenum	ppm	ASTM D5185m 50	17	20	26
Manganese	ppm	ASTM D5185m 0	0	<1	2
Magnesium	ppm	ASTM D5185m 560	150	216	260
Calcium	ppm	ASTM D5185m 1510	521	719	774
Phosphorus	ppm	ASTM D5185m 780	360	434	410
Zinc	ppm	ASTM D5185m 870	266	400	422
Sulfur	ppm	ASTM D5185m 2040	1535	2150	1897

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >+100	4	7	4
Sodium	ppm	ASTM D5185m	2	6	8
Potassium	ppm	ASTM D5185m >20	1	1	2

INFRA-RED

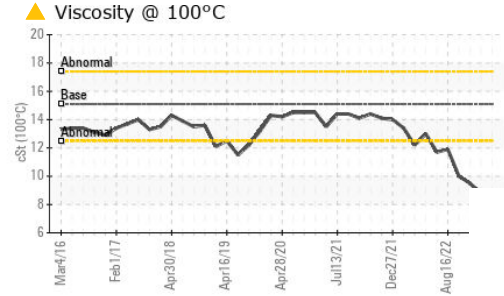
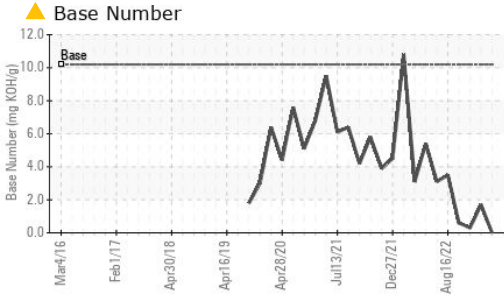
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	0	0	0
Nitration	Abs/cm	*ASTM D7624 >20	6.8	7.9	8.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	26.5	25.6	28.9

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	32.5	29.6	34.9
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	0.0	1.7	0.3



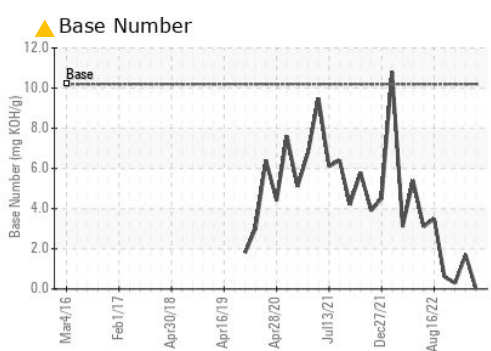
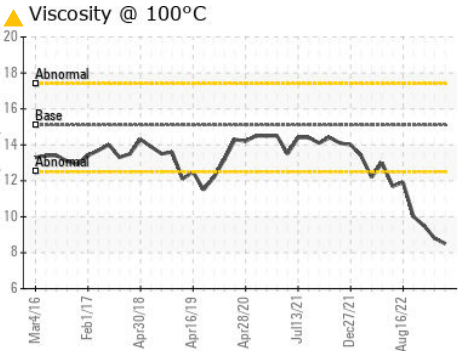
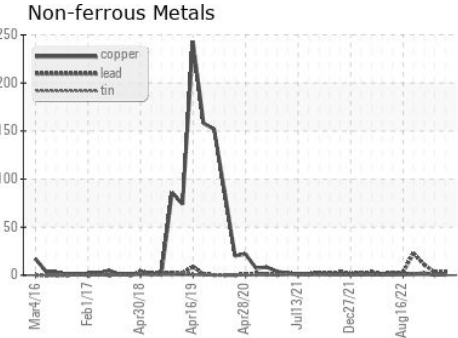
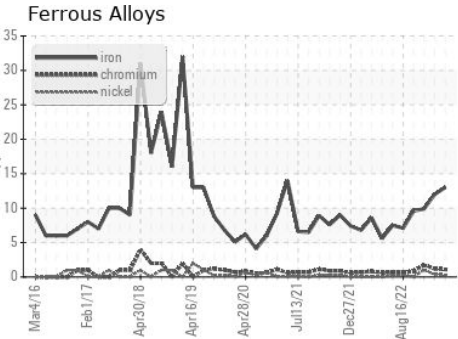
OIL ANALYSIS REPORT



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 ▲ 8.5	▲ 8.8	▲ 9.5

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0094734 **Received** : 17 Oct 2023
Lab Number : **05981054** **Diagnosed** : 19 Oct 2023
Unique Number : 10698349 **Diagnostician** : Jonathan Hester
Test Package : FLEET

GFL Environmental - 001 - Raleigh(CNG)
 3741 Conquest Drive
 Garner, NC
 US 27529
 Contact: Craig Johnson
 craig.johnson@gflenv.com
 T: (919)662-7100
 F: (919)662-7130

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)