



PROBLEM SUMMARY

Sample Rating Trend

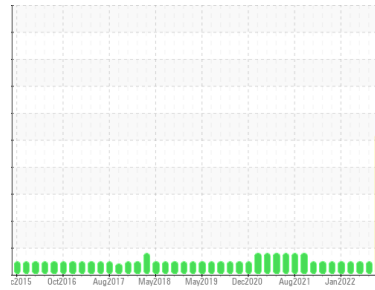
WATER



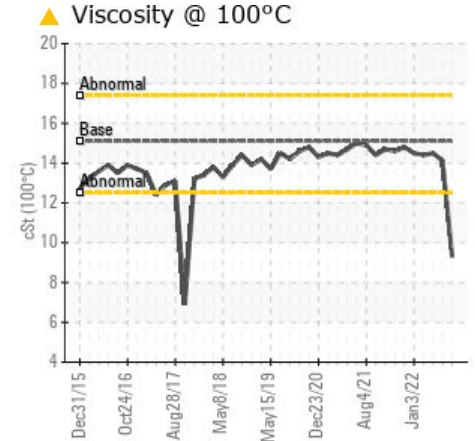
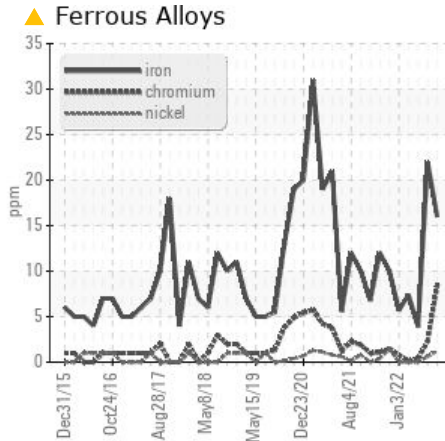
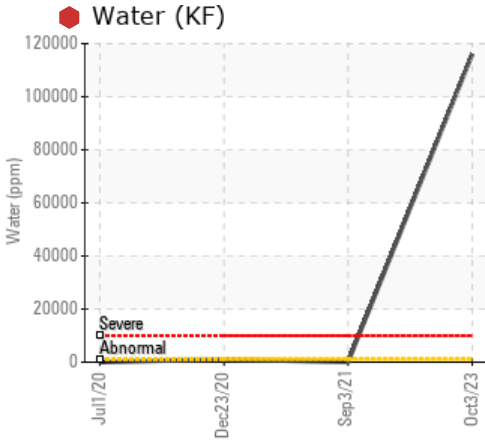
Machine Id
3628C

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (26 GAL)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check for the source of water entry. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please note that there was too much water present in the oil to perform an accurate viscosity test.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	NORMAL
Chromium	ppm	ASTM D5185m	>4	▲ 8	2	<1
Water	%	ASTM D6304	>0.1	● 11.6	---	---
ppm Water	ppm	ASTM D6304	>1000	● 116000	---	---
Appearance	scalar	*Visual	NORML	▲ MILKY	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	● 0.2%	NEG	NEG
Visc @ 100°C	cSt	ASTM D445	15.1	▲ 9.3	14.1	14.5

Customer Id: GFL005
Sample No.: GFL0092699
Lab Number: 05981108
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	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Alert	---	---	?	Please note that there was too much water present in the oil to perform a viscosity test.
Check Water Access	---	---	?	We advise that you check for the source of water entry.

HISTORICAL DIAGNOSIS

06 Sep 2023 Diag: Wes Davis

NORMAL



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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



24 Jan 2023 Diag: Sean Felton

NORMAL



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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



13 Jan 2022 Diag: Wes Davis

NORMAL



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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

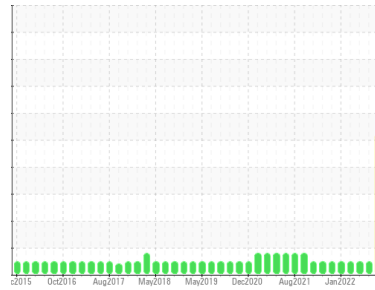
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OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id
3628C

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (26 GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please note that there was too much water present in the oil to perform an accurate viscosity test.

Wear

The chromium level is abnormal. All other component wear rates are normal.

Contamination

Appearance is milky. There is a high concentration of water present in the oil.

Fluid Condition

The oil viscosity is lower than normal. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0092699	GFL0092691	GFL0072390
Sample Date	Client Info		03 Oct 2023	06 Sep 2023	24 Jan 2023
Machine Age	hrs	Client Info	20887	20887	20585
Oil Age	hrs	Client Info	655	677	20585
Oil Changed	Client Info		Changed	Changed	Not Changed
Sample Status			SEVERE	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	16	22	4
Chromium	ppm	ASTM D5185m >4	8	2	<1
Nickel	ppm	ASTM D5185m >2	1	<1	0
Titanium	ppm	ASTM D5185m	<1	<1	0
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >9	3	1	<1
Lead	ppm	ASTM D5185m >30	<1	1	<1
Copper	ppm	ASTM D5185m >35	3	4	<1
Tin	ppm	ASTM D5185m >4	<1	2	<1
Antimony	ppm	ASTM D5185m	---	---	---
Vanadium	ppm	ASTM D5185m	<1	<1	0
Cadmium	ppm	ASTM D5185m	<1	<1	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	40	16	38
Barium	ppm	ASTM D5185m 5	10	44	0
Molybdenum	ppm	ASTM D5185m 50	42	56	48
Manganese	ppm	ASTM D5185m 0	<1	2	<1
Magnesium	ppm	ASTM D5185m 560	508	663	572
Calcium	ppm	ASTM D5185m 1510	987	1366	1418
Phosphorus	ppm	ASTM D5185m 780	639	779	738
Zinc	ppm	ASTM D5185m 870	811	1010	871
Sulfur	ppm	ASTM D5185m 2040	2226	2767	2815

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	5	9	3
Sodium	ppm	ASTM D5185m	8	4	3
Potassium	ppm	ASTM D5185m >20	<1	3	0
Water	%	ASTM D6304 >0.1	11.6	---	---
ppm Water	ppm	ASTM D6304 >1000	116000	---	---

INFRA-RED

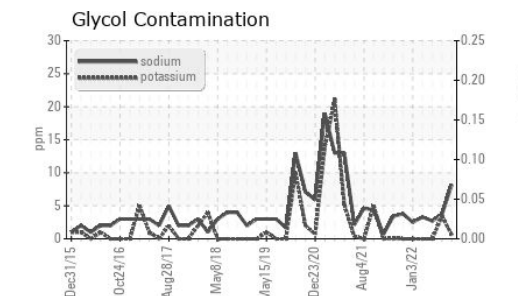
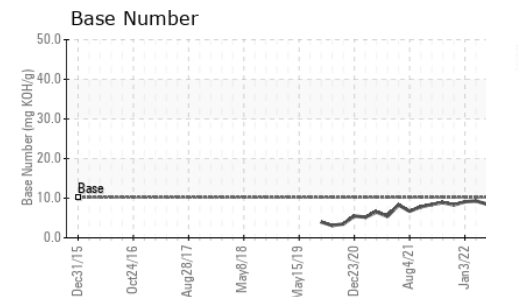
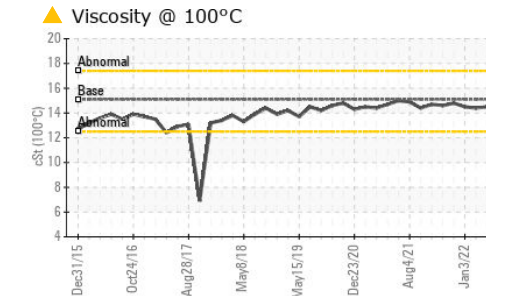
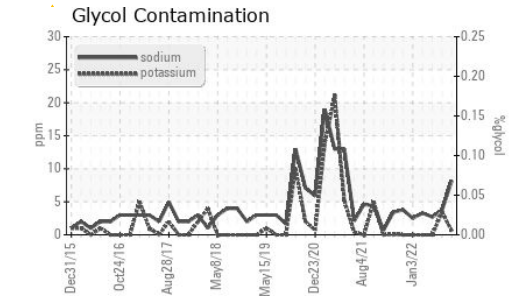
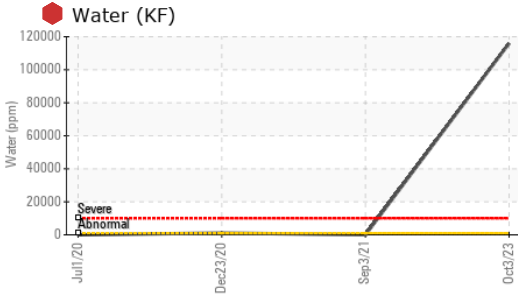
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0.4	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	39.3	9.3	6.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	0.0	19.8	18.4

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	28.5	15.9	14.9
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	40.0	5.9	8.5



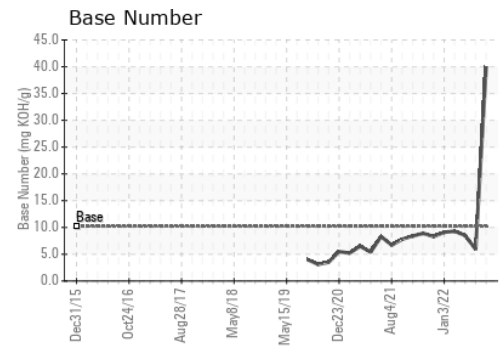
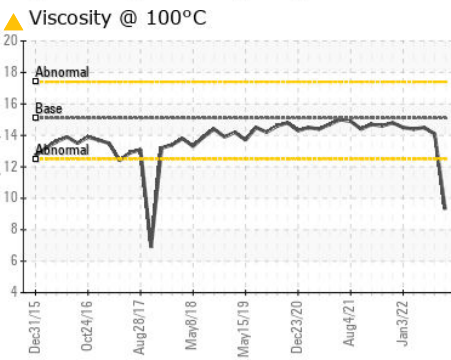
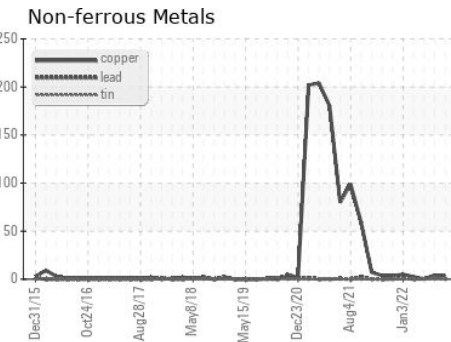
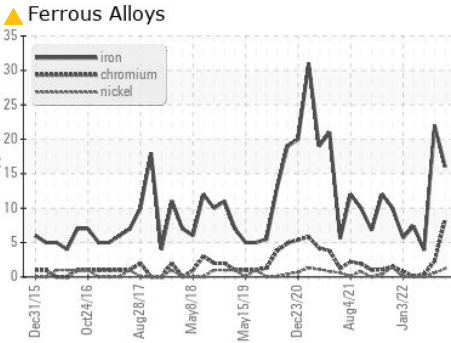
OIL ANALYSIS REPORT



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	▲ MILKY	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	◆ 0.2%	NEG
Free Water	scalar	*Visual		◆ NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	▲ 9.3	14.1

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0092699 **Received** : 17 Oct 2023
Lab Number : 05981108 **Diagnosed** : 19 Oct 2023
Unique Number : 10698403 **Diagnostician** : Jonathan Hester
Test Package : FLEET (Additional Tests: Glycol, KF)

GFL Environmental - 005 - Wilson/Tri-East(CNG)
 2810 Contentnea Road S
 Wilson, NC
 US 27893-8501
 Contact: SPENCER LIGGON
 spencer.liggon@gflenv.com
 T: (800)207-6618
 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)