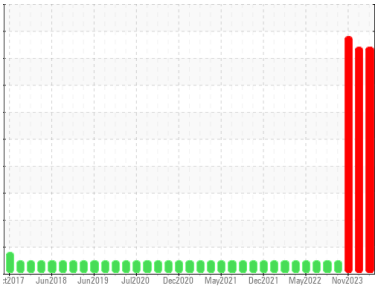
PROBLEM SUMMARY

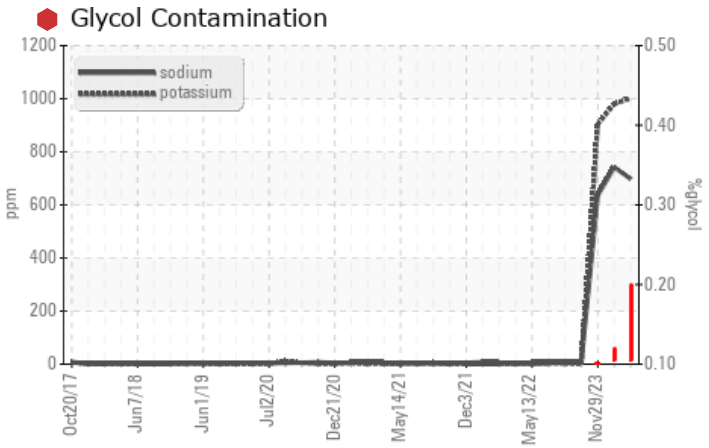
Sample Rating Trend



GLYCOL

Machine Id
2689C
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (48 QTS)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check for the source of the coolant leak. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	SEVERE	SEVERE
Sodium	ppm	ASTM D5185m		▲ **698**	▲ 742	▲ 636
Potassium	ppm	ASTM D5185m	>20	▲ **1001**	▲ 980	▲ 904
Glycol	%	*ASTM D2982		⬢ **0.20**	⬢ 0.12	⬢ 0.10

Customer Id: GFL001
Sample No.: GFL0103216
Lab Number: 06034383
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 and perform a filter service on this component if not already done.
Change Filter	---	---	?	We recommend that you drain the oil and perform a filter service on this component if not already done.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Glycol Access	---	---	?	We advise that you check for the source of the coolant leak.

HISTORICAL DIAGNOSIS

05 Dec 2023 Diag: Don Baldridge

GLYCOL

We advise that you check for the source of the coolant leak. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.All component wear rates are normal. Sodium and/or potassium levels are high. Test for glycol is positive. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

view report

29 Nov 2023 Diag: Don Baldridge

GLYCOL

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.All component wear rates are normal. Sodium and/or potassium levels are high. Test for glycol is positive. Moderate concentration of visible dirt/debris present in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

view report

01 May 2023 Diag: Wes Davis

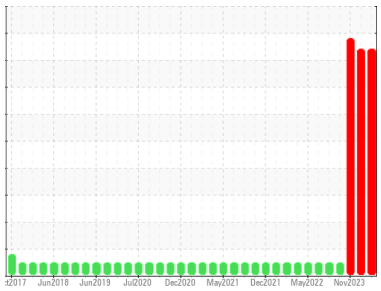
NORMAL

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

OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL

Machine Id
2689C
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (48 QTS)

DIAGNOSIS

Recommendation
We advise that you check for the source of the coolant leak. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

Wear
All component wear rates are normal.

Contamination
Sodium and/or potassium levels are high. Test for glycol is positive.

Fluid Condition
The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0103216**	GFL0094645	GFL0094728
Sample Date		Client Info		**12 Dec 2023**	05 Dec 2023	29 Nov 2023
Machine Age	hrs	Client Info		**4356**	4302	4230
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	Not Changd	Changed
Sample Status				**SEVERE**	SEVERE	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**16**	22	12
Chromium	ppm	ASTM D5185m	>4	**2**	2	2
Nickel	ppm	ASTM D5185m	>2	**<1**	0	<1
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m	>3	**<1**	0	<1
Aluminum	ppm	ASTM D5185m	>9	**4**	4	4
Lead	ppm	ASTM D5185m	>30	**12**	12	10
Copper	ppm	ASTM D5185m	>35	**0**	2	<1
Tin	ppm	ASTM D5185m	>4	**<1**	<1	<1
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	**16**	14	16
Barium	ppm	ASTM D5185m	5	**0**	6	0
Molybdenum	ppm	ASTM D5185m	50	**68**	72	65
Manganese	ppm	ASTM D5185m	0	**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	560	**552**	493	505
Calcium	ppm	ASTM D5185m	1510	**1576**	1567	1460
Phosphorus	ppm	ASTM D5185m	780	**662**	641	637
Zinc	ppm	ASTM D5185m	870	**994**	904	903
Sulfur	ppm	ASTM D5185m	2040	**2472**	2298	2279

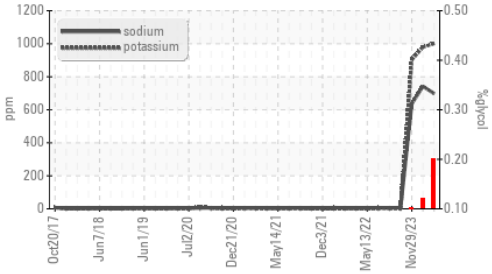
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	**21**	26	19
Sodium	ppm	ASTM D5185m		▲ **698**	▲ 742	▲ 636
Potassium	ppm	ASTM D5185m	>20	▲ **1001**	▲ 980	▲ 904
Glycol	%	*ASTM D2982		⬢ **0.20**	⬢ 0.12	⬢ 0.10

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0**	0	0
Nitration	Abs/cm	*ASTM D7624	>20	**14.5**	14.3	14.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	**26.5**	25.8	25.4

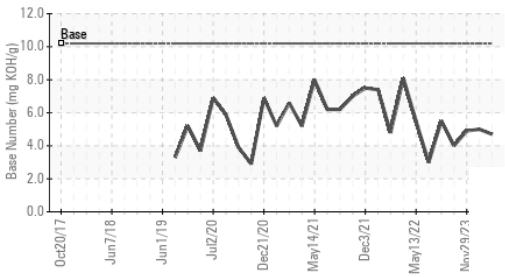
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**23.0**	22.1	21.4
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	**4.7**	5.0	4.9

OIL ANALYSIS REPORT

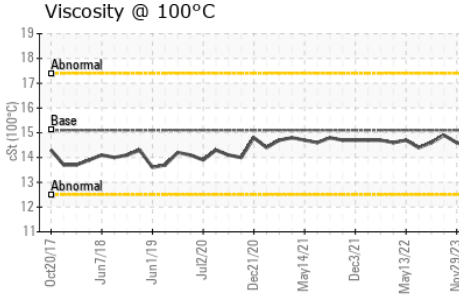
Glycol Contamination



Base Number



Viscosity @ 100°C

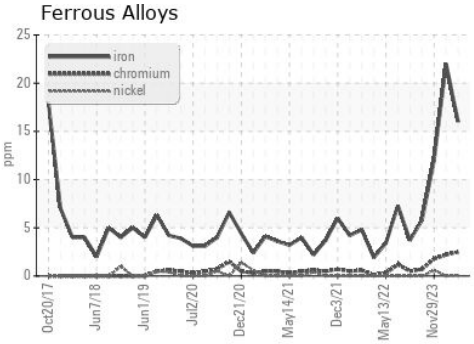


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	▲ MODER
Sand/Dirt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

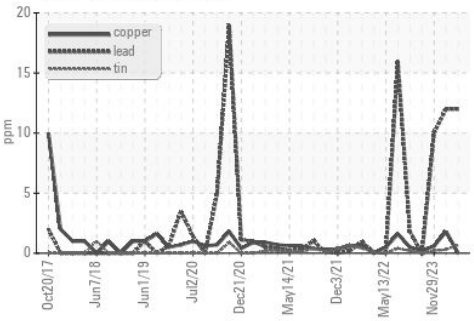
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	**14.7**	14.5	14.6

GRAPHS

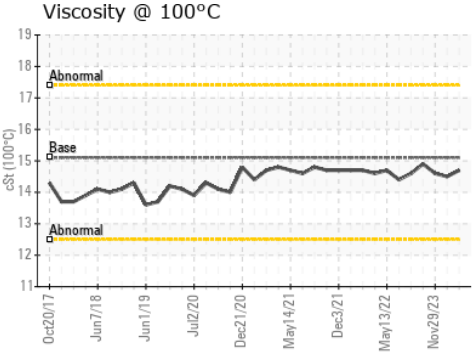
Ferrous Alloys



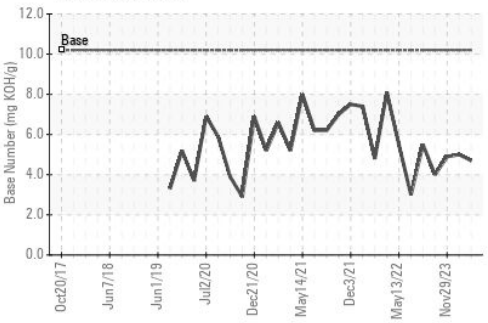
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0103216
Lab Number : 06034383
Unique Number : 10789612
Test Package : FLEET

Recieved : 14 Dec 2023
Diagnosed : 18 Dec 2023
Diagnostician : Jonathan Hester

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)

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