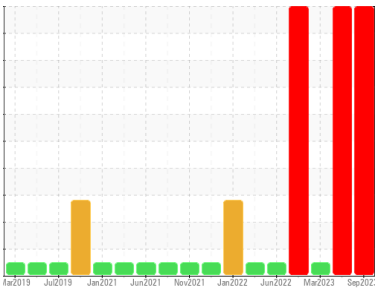
PROBLEM SUMMARY

Sample Rating Trend

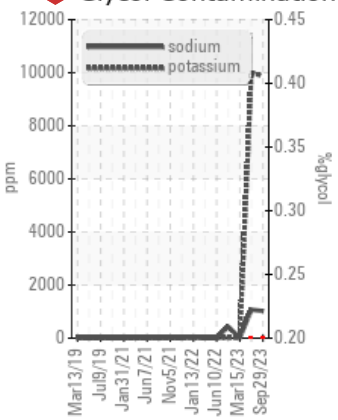


GLYCOL

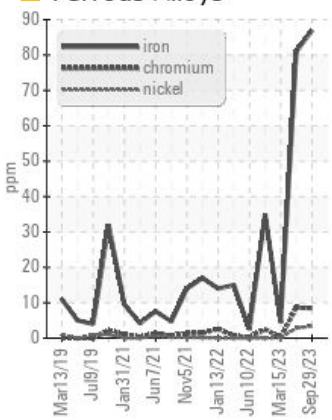
Machine Id
3811C
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (46 GAL)

COMPONENT CONDITION SUMMARY

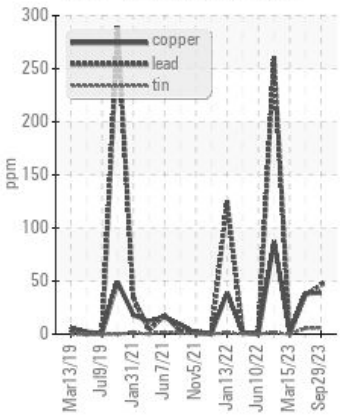
Glycol Contamination



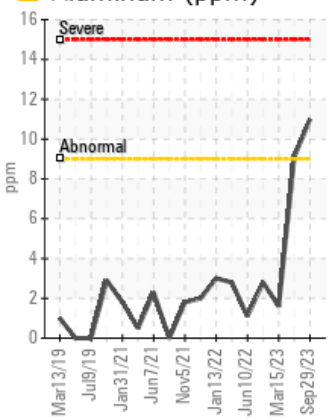
Ferrous Alloys



Non-ferrous Metals



Aluminum (ppm)



RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	SEVERE	NORMAL
Iron	ppm	ASTM D5185m	>50	▲ **87**	▲ 81	4
Chromium	ppm	ASTM D5185m	>4	▲ **8**	▲ 9	<1
Aluminum	ppm	ASTM D5185m	>9	▲ **11**	9	2
Lead	ppm	ASTM D5185m	>30	▲ **46**	▲ 37	<1
Copper	ppm	ASTM D5185m	>35	▲ **39**	▲ 38	2
Tin	ppm	ASTM D5185m	>4	▲ **6**	5	<1
Sodium	ppm	ASTM D5185m		▲ **1019**	▲ 1074	2
Potassium	ppm	ASTM D5185m	>20	▲ **9875**	▲ 10000	1
Glycol	%	*ASTM D2982		⬢ **0.20**	⬢ 0.20	---

Customer Id: GFL018
Sample No.: GFL0080534
Lab Number: 05966030
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

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.
Check Glycol Access	---	---	?	We advise that you check for the source of the coolant leak.

HISTORICAL DIAGNOSIS

05 Sep 2023 Diag: Don Baldridge

GLYCOL

We advise that you check for the source of the coolant leak. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.Cylinder, crank, or cam shaft wear is indicated. Bearing wear is indicated. Sodium and/or potassium levels are high. Test for glycol is positive. There is a high concentration of glycol present in the oil. The oil is no longer serviceable due to the presence of contaminants.

view report

15 Mar 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

04 Jan 2023 Diag: Jonathan Hester

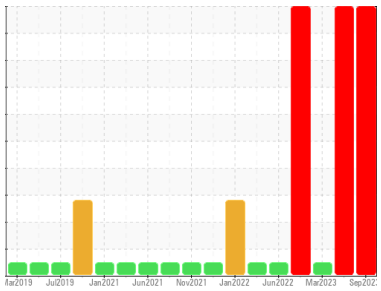
WEAR

We advise that you check for the source of the coolant leak. Check for low coolant level. 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.Bearing and/or bushing wear is indicated. Sodium and/or potassium levels are high. There is a light concentration of water present in the oil. The BN level is low. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL

Machine Id
3811C
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (46 GAL)

DIAGNOSIS

Recommendation
We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear
Cylinder, crank, or cam shaft wear is indicated. Bearing wear is indicated.

Contamination
Sodium and/or potassium levels are high. Test for glycol is positive. There is a high concentration of glycol present in the oil.

Fluid Condition
The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0080534**	GFL0074445	GFL0066825
Sample Date		Client Info		**29 Sep 2023**	05 Sep 2023	15 Mar 2023
Machine Age	hrs	Client Info		**30272**	30272	30272
Oil Age	hrs	Client Info		**30272**	30272	30272
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**SEVERE**	SEVERE	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	▲ **87**	▲ 81	4
Chromium	ppm	ASTM D5185m	>4	▲ **8**	▲ 9	<1
Nickel	ppm	ASTM D5185m	>2	**3**	3	<1
Titanium	ppm	ASTM D5185m		**<1**	<1	0
Silver	ppm	ASTM D5185m	>3	**0**	<1	0
Aluminum	ppm	ASTM D5185m	>9	▲ **11**	9	2
Lead	ppm	ASTM D5185m	>30	▲ **46**	▲ 37	<1
Copper	ppm	ASTM D5185m	>35	▲ **39**	▲ 38	2
Tin	ppm	ASTM D5185m	>4	▲ **6**	5	<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	**8**	10	50
Barium	ppm	ASTM D5185m	5	**0**	3	0
Molybdenum	ppm	ASTM D5185m	50	**100**	98	47
Manganese	ppm	ASTM D5185m	0	**2**	2	<1
Magnesium	ppm	ASTM D5185m	560	**687**	704	500
Calcium	ppm	ASTM D5185m	1510	**1622**	1608	1473
Phosphorus	ppm	ASTM D5185m	780	**966**	954	732
Zinc	ppm	ASTM D5185m	870	**1208**	1135	892
Sulfur	ppm	ASTM D5185m	2040	**3213**	3289	2287

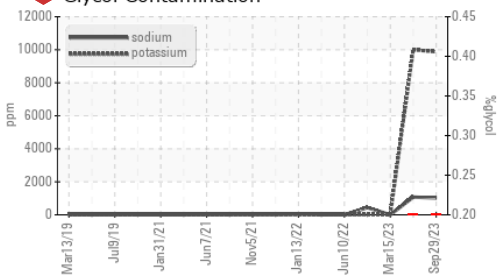
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	**25**	26	24
Sodium	ppm	ASTM D5185m		▲ **1019**	▲ 1074	2
Potassium	ppm	ASTM D5185m	>20	▲ **9875**	▲ 10000	1
Glycol	%	*ASTM D2982		⬢ **0.20**	⬢ 0.20	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0.1**	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	**23.2**	23.4	7.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	**35.1**	34.1	18.5

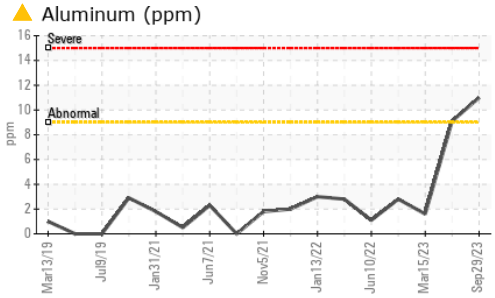
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**19.2**	18.1	15.3
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	**16.9**	17.7	9.0

OIL ANALYSIS REPORT

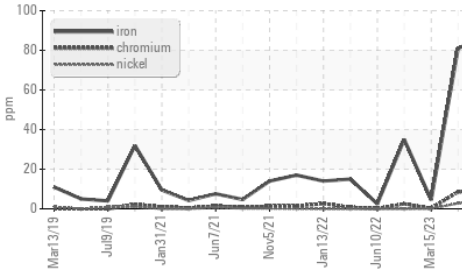
Glycol Contamination



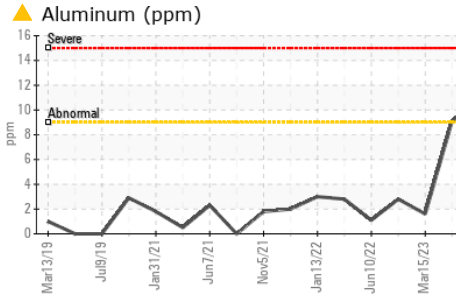
Aluminum (ppm)



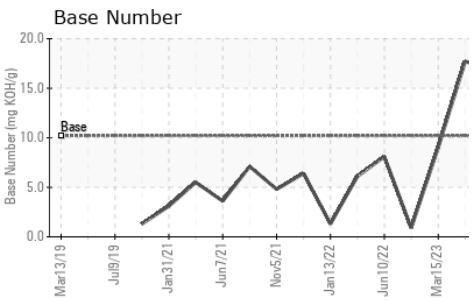
Ferrous Alloys



Aluminum (ppm)



Base Number

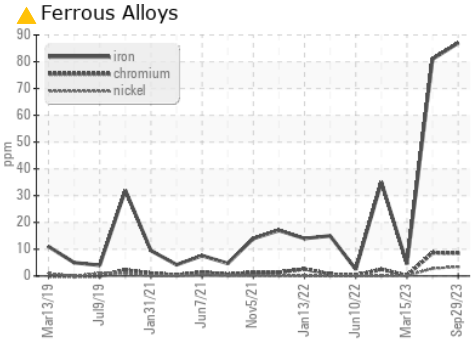


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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

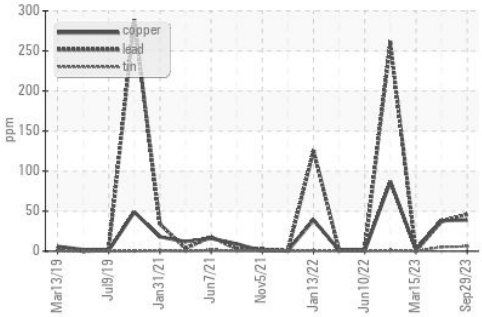
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	**15.8**	15.8	13.8

GRAPHS

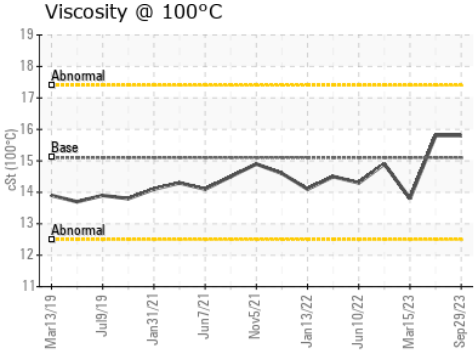
Ferrous Alloys



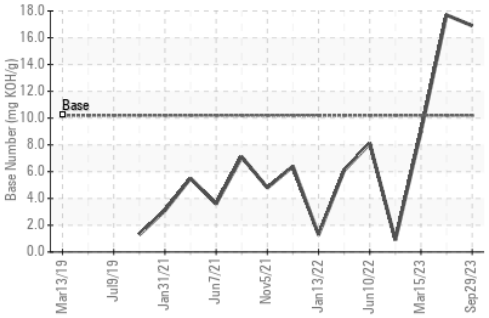
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0080534
Lab Number : 05966030
Unique Number : 10672581
Test Package : FLEET

Received : 02 Oct 2023
Diagnosed : 03 Oct 2023
Diagnostician : Don Baldridge

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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US 28348
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