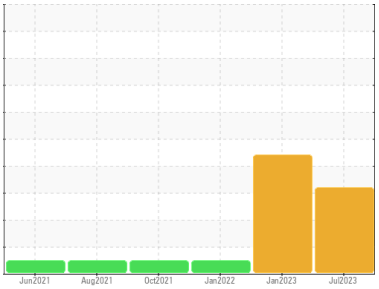
PROBLEM SUMMARY

Sample Rating Trend

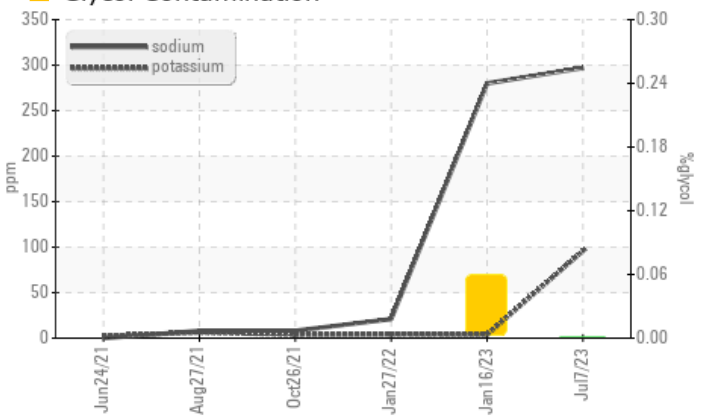


GLYCOL

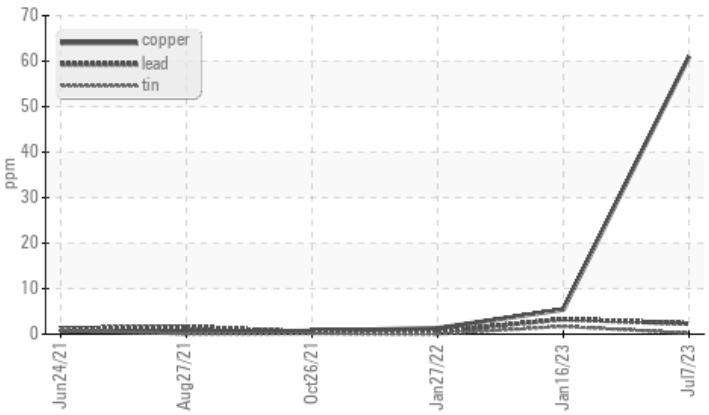
Machine Id
944030
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (--- LTR)

COMPONENT CONDITION SUMMARY

▲ Glycol Contamination



▲ Non-ferrous Metals



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	NORMAL
Copper	ppm	ASTM D5185m	>35	▲ **61**	5	1
Sodium	ppm	ASTM D5185m		▲ **297**	▲ 280	21
Potassium	ppm	ASTM D5185m	>20	▲ **96**	4	4

Customer Id: GFL882
Sample No.: GFL0085404
Lab Number: 05894830
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Doug Bogart +1 (800)237-1369 x4016
dougb@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.

HISTORICAL DIAGNOSIS

16 Jan 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.The aluminum level is abnormal. All other 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.

view report

27 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.

view report

26 Oct 2021 Diag: Wes Davis

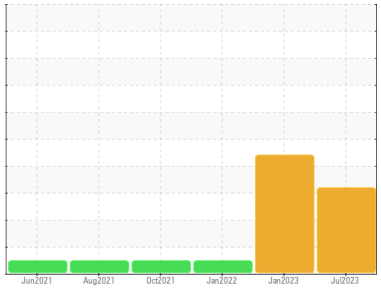
NORMAL

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
944030
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (--- LTR)

DIAGNOSIS

Recommendation
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

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

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

Fluid Condition
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0085404**	GFL0066772	GFL0041098
Sample Date		Client Info		**07 Jul 2023**	16 Jan 2023	27 Jan 2022
Machine Age	hrs	Client Info		**21388**	20275	17995
Oil Age	hrs	Client Info		**20275**	2280	622
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**ABNORMAL**	ABNORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**29**	40	26
Chromium	ppm	ASTM D5185m	>4	**2**	2	3
Nickel	ppm	ASTM D5185m	>2	**1**	<1	1
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m	>3	**0**	0	<1
Aluminum	ppm	ASTM D5185m	>9	**6**	▲ 15	3
Lead	ppm	ASTM D5185m	>30	**2**	3	<1
Copper	ppm	ASTM D5185m	>35	▲ **61**	5	1
Tin	ppm	ASTM D5185m	>4	**<1**	2	0
Antimony	ppm	ASTM D5185m		**---**	---	<1
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	**2**	9	8
Barium	ppm	ASTM D5185m	5	**0**	0	0
Molybdenum	ppm	ASTM D5185m	50	**63**	61	56
Manganese	ppm	ASTM D5185m	0	**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	560	**514**	528	555
Calcium	ppm	ASTM D5185m	1510	**1557**	1537	1617
Phosphorus	ppm	ASTM D5185m	780	**599**	757	728
Zinc	ppm	ASTM D5185m	870	**919**	924	977
Sulfur	ppm	ASTM D5185m	2040	**2661**	3023	2364

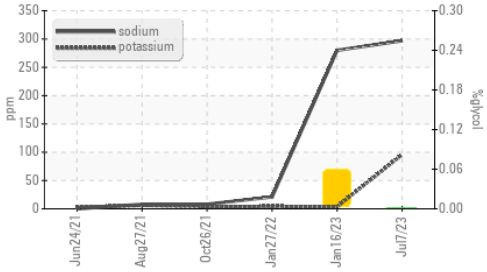
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	**4**	6	5
Sodium	ppm	ASTM D5185m		▲ **297**	▲ 280	21
Potassium	ppm	ASTM D5185m	>20	▲ **96**	4	4
Glycol	%	*ASTM D2982		**0.0**	▲ 0.06	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0.1**	0.1	0
Nitration	Abs/cm	*ASTM D7624	>20	**12.4**	10.7	11.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	**23.3**	26.4	22.9

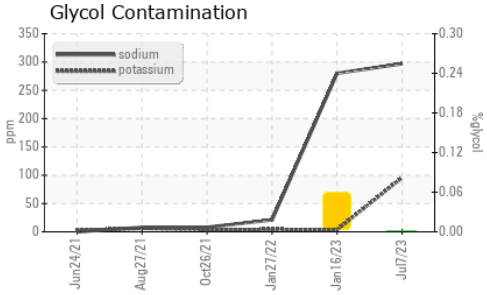
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**19.7**	24.4	19.5
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	**5.3**	6.1	5.2

OIL ANALYSIS REPORT

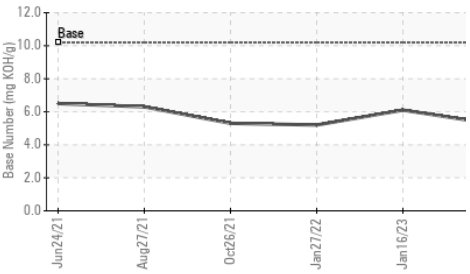
Glycol Contamination



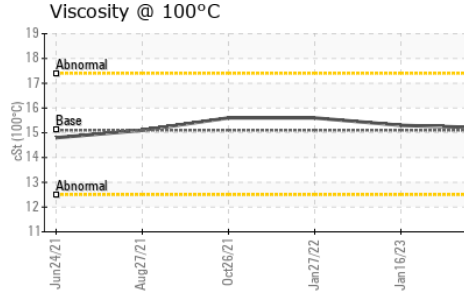
Glycol Contamination



Base Number



Viscosity @ 100°C

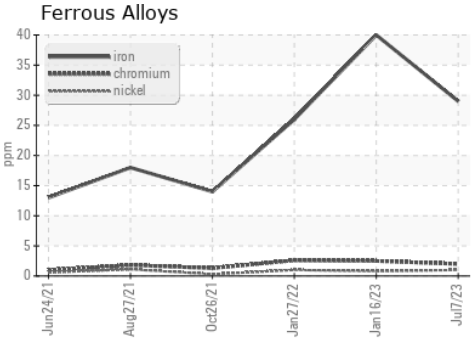


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

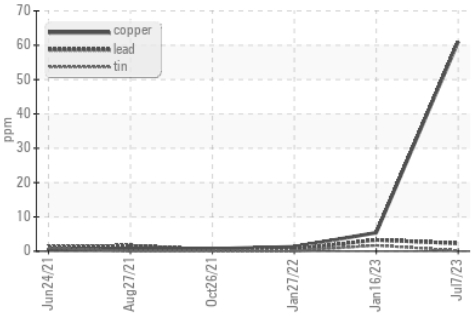
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	**15.2**	15.3	15.6

GRAPHS

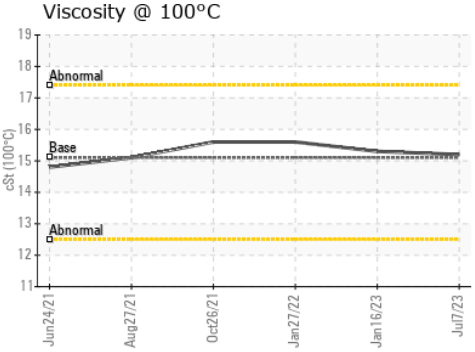
Ferrous Alloys



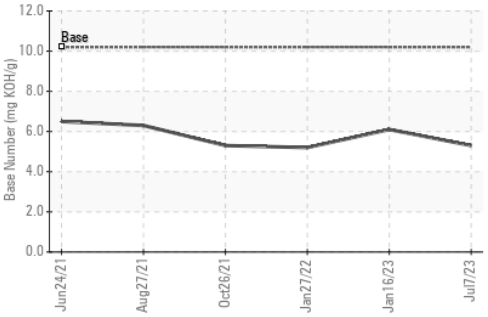
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0085404
Lab Number : 05894830
Unique Number : 10550640
Test Package : FLEET

Received : 11 Jul 2023
Diagnosed : 19 Jul 2023
Diagnostician : Doug Bogart

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 - 882 - Gainesville
5002 SW 41st Blvd
Gainesville, FL
US 32608
Contact: ROBERT CLARK
robert.clark@gflenv.com
T:
F:

Report Id: GFL882 [WUSCAR] 05894830 (Generated: 07/19/2023 21:10:08) Rev: 1

Submitted By: STEPHEN WEIL