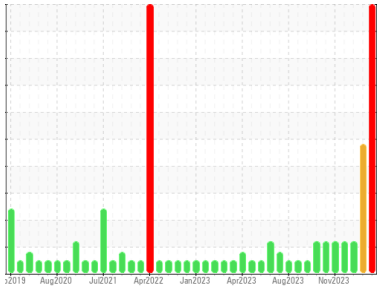
PROBLEM SUMMARY

Area
(DXE868)
Machine Id
3667
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (38 QTS)

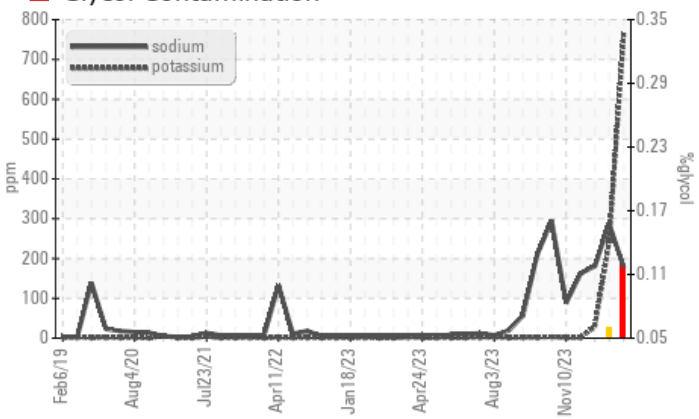
Sample Rating Trend



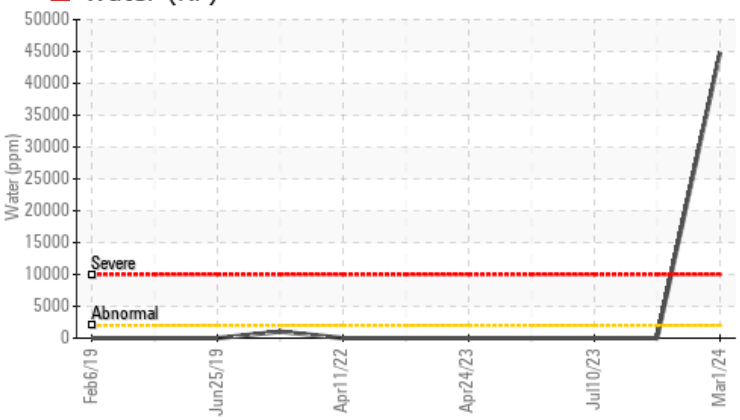
GLYCOL

COMPONENT CONDITION SUMMARY

▲ Glycol Contamination



▲ Water (KF)



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**	ABNORMAL	ABNORMAL
Sodium	ppm	ASTM D5185m		▲ **178**	▲ 287	▲ 181
Potassium	ppm	ASTM D5185m	>20	▲ **764**	▲ 241	29
Water	%	ASTM D6304	>0.2	▲ **4.48**	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ **44800**	---	---
Glycol	%	*ASTM D2982		▲ **0.12**	▲ 0.06	NEG
Emulsified Water	scalar	*Visual	>0.2	▲ **0.2%**	NEG	NEG

Customer Id: GFL073
Sample No.: GFL0068843
Lab Number: 06111036
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

22 Dec 2023 Diag: Don Baldridge

GLYCOL

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.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

05 Dec 2023 Diag: Jonathan Hester

GLYCOL

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.All component wear rates are normal. Sodium and/or potassium levels are high. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report

16 Nov 2023 Diag: Jonathan Hester

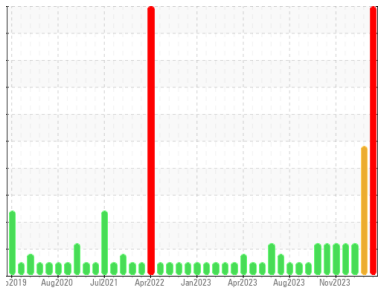
GLYCOL

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.All component wear rates are normal. Sodium and/or potassium levels are high. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL

Area
(DXE868)
Machine Id
3667
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (38 QTS)

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

All component wear rates are normal.

▲ Contamination

Sodium and/or potassium levels are high. Test for glycol is positive. There is a high concentration of water and coolant 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		**GFL0068843**	GFL0097151	GFL0097147
Sample Date		Client Info		**01 Mar 2024**	22 Dec 2023	05 Dec 2023
Machine Age	hrs	Client Info		**20989**	20839	20648
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Changed**	Not Changd	Not Changd
Sample Status				**SEVERE**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	**<1.0**	<1.0	<1.0

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>75	**19**	6	27
Chromium	ppm	ASTM D5185m	>5	**<1**	0	1
Nickel	ppm	ASTM D5185m	>4	**<1**	0	0
Titanium	ppm	ASTM D5185m	>2	**0**	0	<1
Silver	ppm	ASTM D5185m	>2	**0**	14	0
Aluminum	ppm	ASTM D5185m	>15	**5**	1	10
Lead	ppm	ASTM D5185m	>25	**<1**	<1	0
Copper	ppm	ASTM D5185m	>100	**56**	3	2
Tin	ppm	ASTM D5185m	>4	**2**	0	0
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**0**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**64**	15	8
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	60	**152**	76	59
Manganese	ppm	ASTM D5185m	0	**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	1010	**806**	881	860
Calcium	ppm	ASTM D5185m	1070	**995**	941	949
Phosphorus	ppm	ASTM D5185m	1150	**951**	1028	968
Zinc	ppm	ASTM D5185m	1270	**1168**	1243	1173
Sulfur	ppm	ASTM D5185m	2060	**3241**	3032	2903

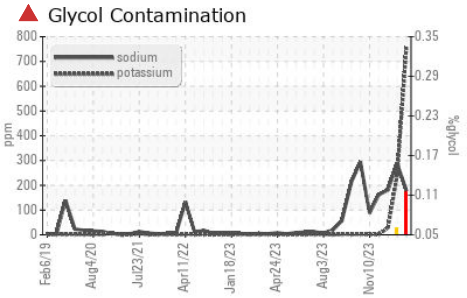
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**11**	5	12
Sodium	ppm	ASTM D5185m		▲ **178**	▲ 287	▲ 181
Potassium	ppm	ASTM D5185m	>20	▲ **764**	▲ 241	29
Water	%	ASTM D6304	>0.2	▲ **4.48**	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ **44800**	---	---
Glycol	%	*ASTM D2982		▲ **0.12**	▲ 0.06	NEG

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	**0.3**	0.2	0.5
Nitration	Abs/cm	*ASTM D7624	>20	**19.2**	5.6	7.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	**2.7**	16.7	18.3

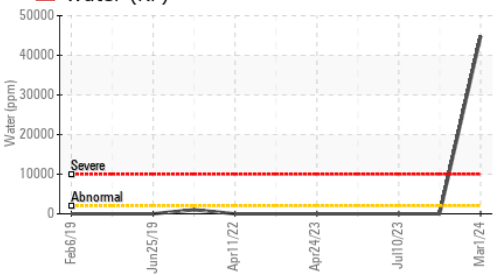
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**22.2**	12.2	13.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**47.3**	11.6	9.0

OIL ANALYSIS REPORT

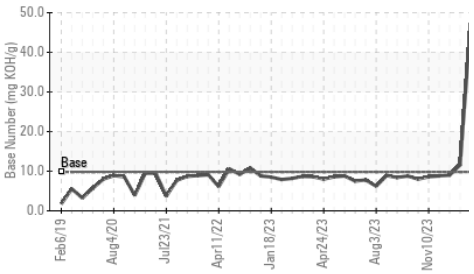
▲ Glycol Contamination



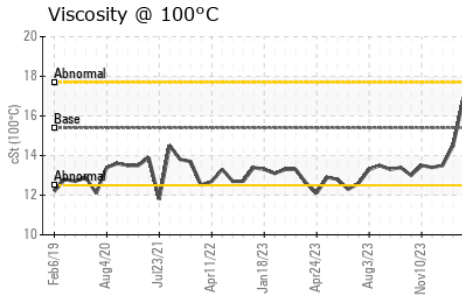
▲ Water (KF)



Base Number



Viscosity @ 100°C

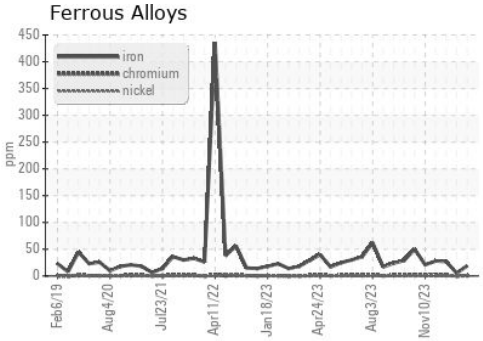


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	▲ **0.2%**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

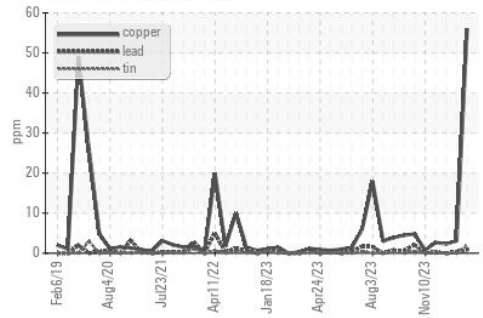
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	**16.9**	14.5	13.5

GRAPHS

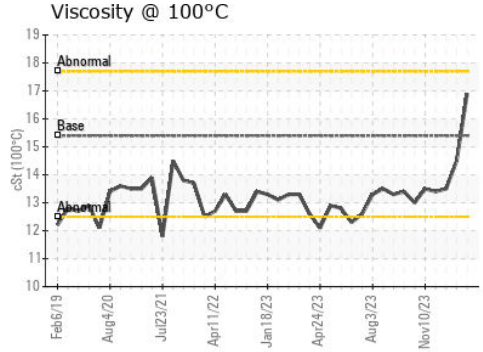
Ferrous Alloys



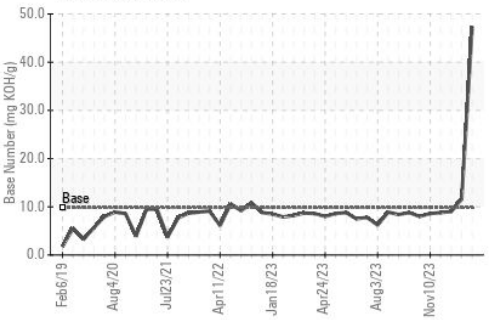
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0068843
Lab Number : 06111036
Unique Number : 10914533
Test Package : FLEET (Additional Tests: KF)

Received : 07 Mar 2024
Tested : 08 Mar 2024
Diagnosed : 09 Mar 2024 - Don Baldridge

GFL Environmental - 073 - Warner Robins - Transwaste
155 Story Road
Warner Robins, GA
US 31093
Contact: Mike Taft

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)

T:
F: