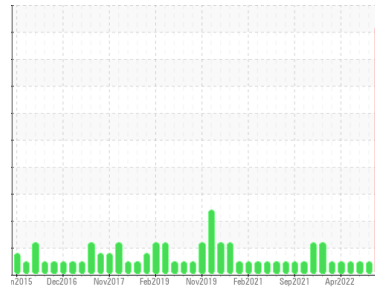




PROBLEM SUMMARY

Sample Rating Trend



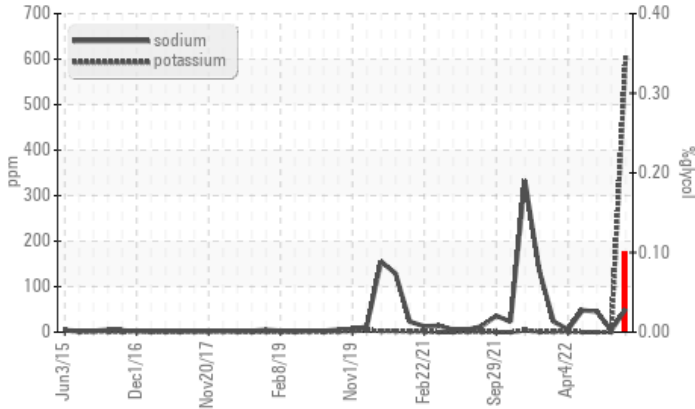
GLYCOL



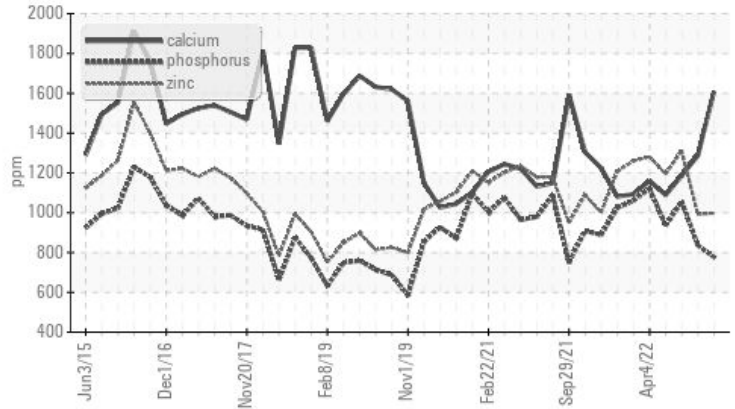
Machine Id
3645
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (38 QTS)

COMPONENT CONDITION SUMMARY

● Glycol Contamination



▲ Additives



RECOMMENDATION

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	NORMAL
Magnesium	ppm	ASTM D5185m	1010	▲ 597	710	995
Calcium	ppm	ASTM D5185m	1070	▲ 1609	1287	1187
Sodium	ppm	ASTM D5185m		▲ 50	4	45
Potassium	ppm	ASTM D5185m	>20	▲ 607	0	0
Glycol	%	*ASTM D2982		● 0.10	NEG	NEG

Customer Id: GFL035
 Sample No.: GFL0071615
 Lab Number: 05939476
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Fluid Source	---	---	?	Confirm the source of the lubricant being utilized for top-up/fill.
Check Glycol Access	---	---	?	We advise that you check for the source of the coolant leak.

HISTORICAL DIAGNOSIS

13 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



13 Oct 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



06 Jun 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.

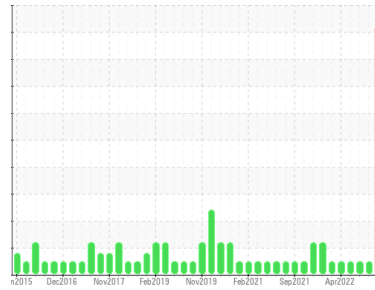
view report





OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id
3645

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. The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Test for glycol is positive. There is a high concentration of glycol present in the oil.

Fluid Condition

Additive levels indicate the addition of a different brand, or type of 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.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0071615	GFL0053153	GFL0053233
Sample Date	Client Info		30 Aug 2023	13 Mar 2023	13 Oct 2022
Machine Age	hrs	Client Info	11809	11809	11809
Oil Age	hrs	Client Info	600	600	600
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			SEVERE	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	<1.0

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	16	42	48
Chromium	ppm	ASTM D5185m >20	<1	1	2
Nickel	ppm	ASTM D5185m >4	<1	0	0
Titanium	ppm	ASTM D5185m	0	<1	0
Silver	ppm	ASTM D5185m >3	0	<1	0
Aluminum	ppm	ASTM D5185m >20	2	3	6
Lead	ppm	ASTM D5185m >40	<1	<1	<1
Copper	ppm	ASTM D5185m >330	72	32	2
Tin	ppm	ASTM D5185m >15	<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 0	39	16	6
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 60	49	52	66
Manganese	ppm	ASTM D5185m 0	1	3	<1
Magnesium	ppm	ASTM D5185m 1010	597	710	995
Calcium	ppm	ASTM D5185m 1070	1609	1287	1187
Phosphorus	ppm	ASTM D5185m 1150	777	836	1056
Zinc	ppm	ASTM D5185m 1270	998	993	1311
Sulfur	ppm	ASTM D5185m 2060	2601	3072	3437

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	11	15	8
Sodium	ppm	ASTM D5185m	50	4	45
Potassium	ppm	ASTM D5185m >20	607	0	0
Glycol	%	*ASTM D2982	0.10	NEG	NEG

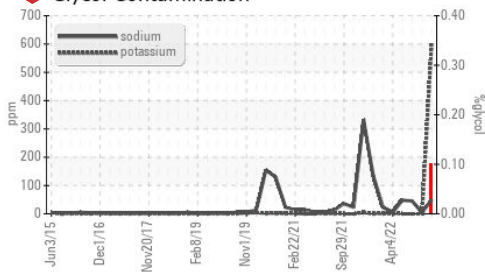
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.4	0.5	1.8
Nitration	Abs/cm	*ASTM D7624 >20	8.0	8.0	13.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	24.1	21.1	27.8

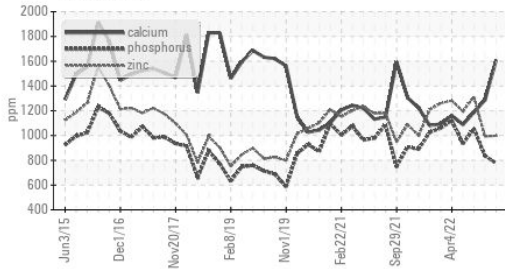
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	20.5	17.9	21.1
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	10.7	6.8	8.0

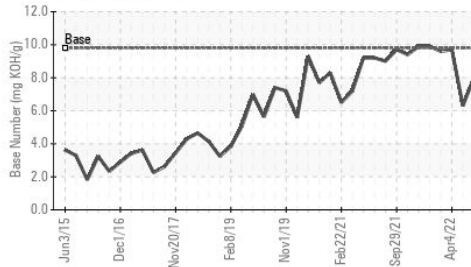
Glycol Contamination



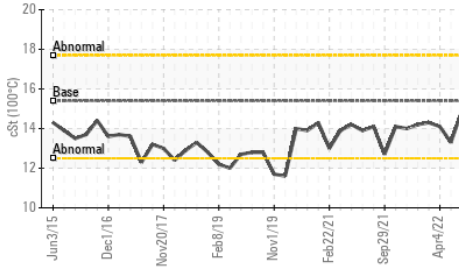
Additives



Base Number



Viscosity @ 100°C



VISUAL

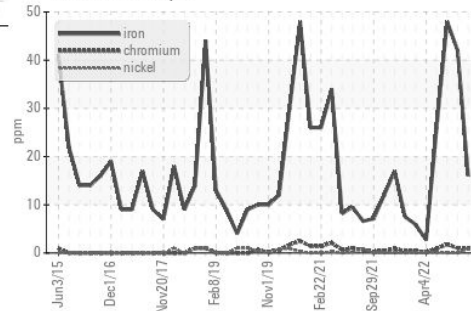
	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar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

FLUID PROPERTIES

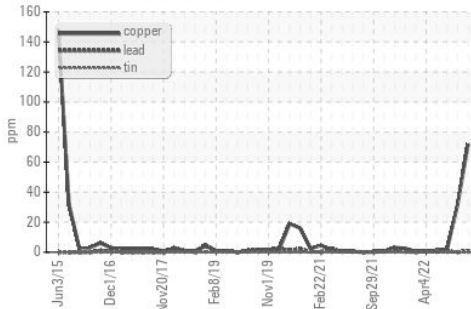
	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	12.8	13.1

GRAPHS

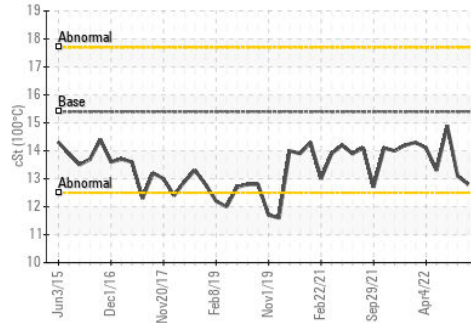
Ferrous Alloys



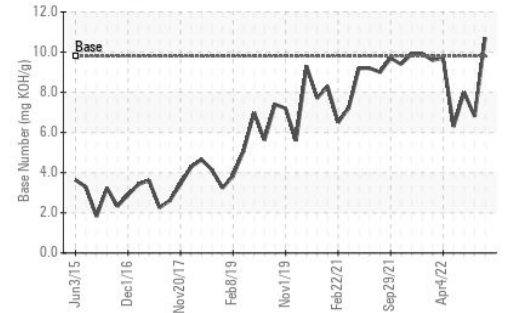
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0071615 Received : 31 Aug 2023
 Lab Number : 05939476 Diagnosed : 01 Sep 2023
 Unique Number : 10630088 Diagnostician : Wes Davis
 Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 035 - Greensboro
 1236 Elon Place
 High Point, NC
 US 27263
 Contact: JORGE COSTA
 jorge.costa@gflenv.com
 T: (336)668-3712
 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)