



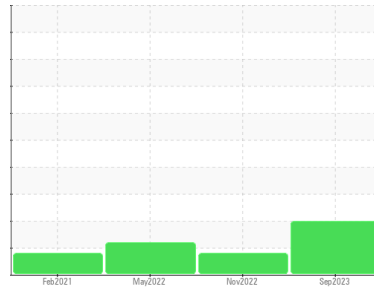
PROBLEM SUMMARY

Sample Rating Trend

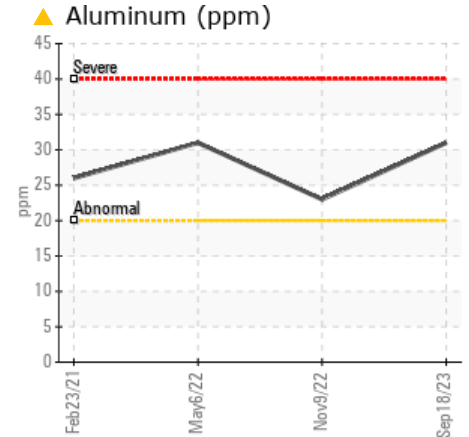
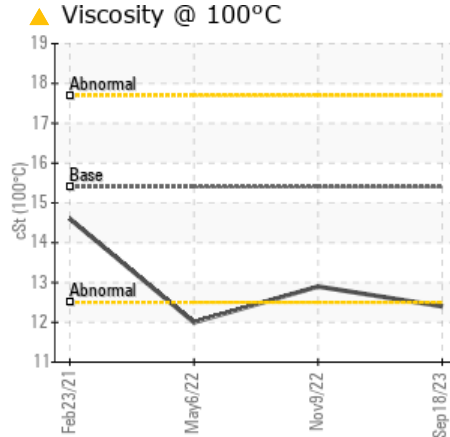
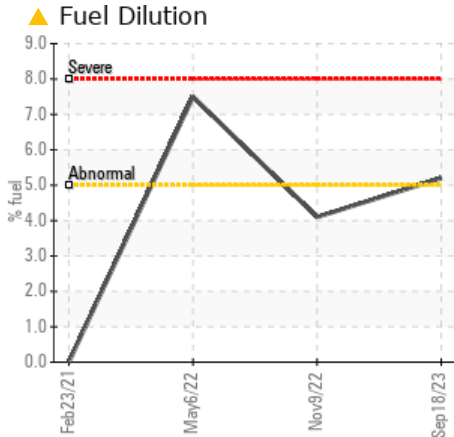
WEAR



Machine Id
221010 - 204 can truck
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (9 QTS)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	MARGINAL	ABNORMAL
Aluminum	ppm	ASTM D5185m	>20	▲ 31	23	31
Fuel	%	ASTM D3524	>5	▲ 5.2	▲ 4.1	▲ 7.5
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 12.4	12.9	▲ 12.0

Customer Id: GFL656
 Sample No.: GFL0090923
 Lab Number: 05958093
 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
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

09 Nov 2022 Diag: Angela Borella

FUEL



We advise that you check the fuel injection system. Resample at the next service interval to monitor. All component wear rates are normal. Light fuel dilution occurring. The BN result indicates that there is suitable alkalinity remaining in the oil.

[view report](#)



06 May 2022 Diag: Don Baldrige

FUEL



We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

[view report](#)



23 Feb 2021 Diag: Don Baldrige

SOOT



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is an abnormal amount of solids and carbon present 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.

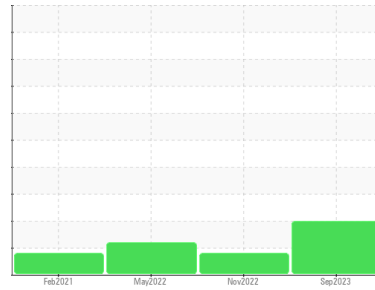
[view report](#)





OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
221010 - 204 can truck
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (9 QTS)

DIAGNOSIS

Recommendation

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear

Aluminum ppm levels are abnormal. Piston wear is indicated.

Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0090923	GFL0062015	GFL0048400
Sample Date	Client Info	18 Sep 2023	09 Nov 2022	06 May 2022
Machine Age	hrs	10795	10755	10678
Oil Age	hrs	89	100	297
Oil Changed	Client Info	Not Chngd	N/A	Changed
Sample Status		ABNORMAL	MARGINAL	ABNORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	48	37	73
Chromium	ppm ASTM D5185m >20	<1	<1	1
Nickel	ppm ASTM D5185m >4	<1	<1	<1
Titanium	ppm ASTM D5185m	4	5	23
Silver	ppm ASTM D5185m >3	0	3	0
Aluminum	ppm ASTM D5185m >20	▲ 31	23	31
Lead	ppm ASTM D5185m >40	0	0	0
Copper	ppm ASTM D5185m >330	2	2	5
Tin	ppm ASTM D5185m >15	<1	0	<1
Antimony	ppm ASTM D5185m	---	---	---
Vanadium	ppm ASTM D5185m	0	0	<1
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	20	14	18
Barium	ppm ASTM D5185m 0	0	0	0
Molybdenum	ppm ASTM D5185m 60	59	56	44
Manganese	ppm ASTM D5185m 0	<1	<1	<1
Magnesium	ppm ASTM D5185m 1010	888	857	792
Calcium	ppm ASTM D5185m 1070	1138	1116	1321
Phosphorus	ppm ASTM D5185m 1150	1049	1005	1038
Zinc	ppm ASTM D5185m 1270	1243	1227	1187
Sulfur	ppm ASTM D5185m 2060	3742	3817	2833

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	7	4	7
Sodium	ppm ASTM D5185m	13	10	18
Potassium	ppm ASTM D5185m >20	20	15	27
Fuel	% ASTM D3524 >5	▲ 5.2	▲ 4.1	▲ 7.5

INFRA-RED

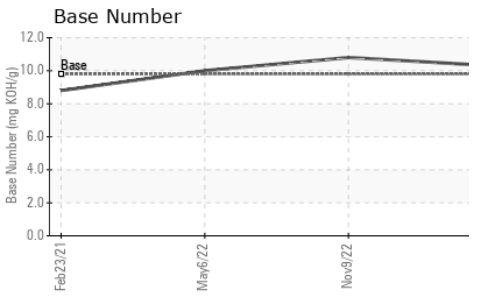
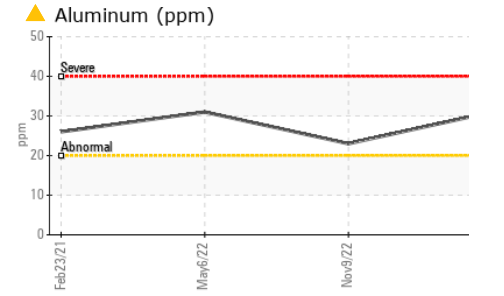
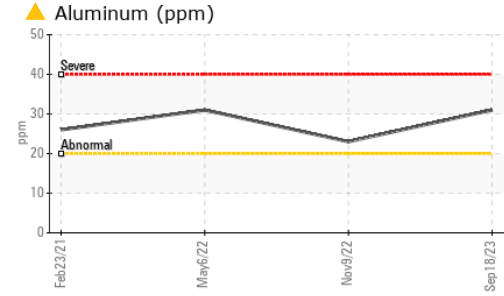
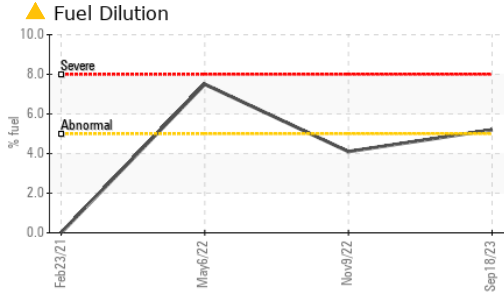
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.2	0.9	1.7
Nitration	Abs/cm *ASTM D7624 >20	9.1	8.7	13.0
Sulfation	Abs/.1mm *ASTM D7415 >30	22.2	20.7	24.3

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	16.2	16.1	20.2
Base Number (BN)	mg KOH/g ASTM D2896 9.8	10.3	10.8	10.0



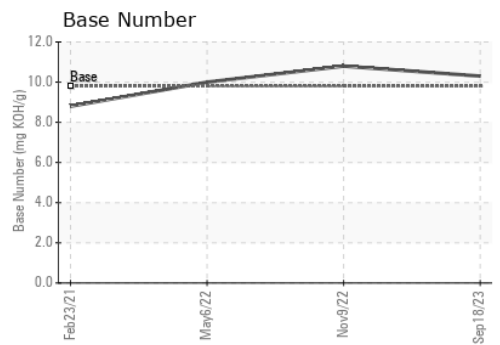
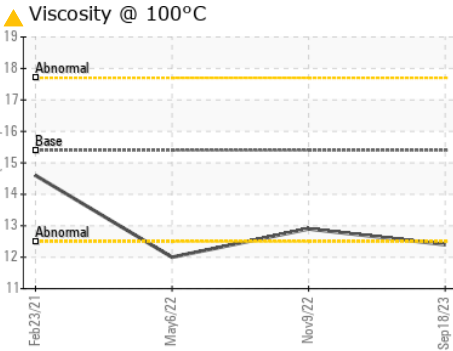
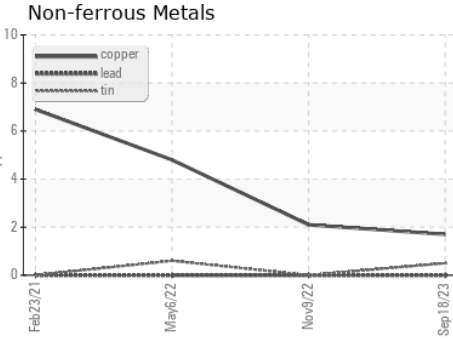
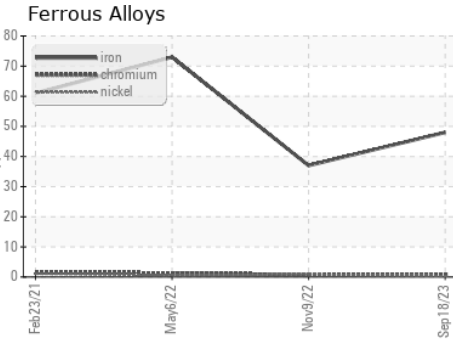
OIL ANALYSIS REPORT



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	▲ 12.4	12.9

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0090923 **Received** : 21 Sep 2023
Lab Number : 05958093 **Diagnosed** : 25 Sep 2023
Unique Number : 10659306 **Diagnostician** : Wes Davis
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 656 - Culpeper Hauling
 15490 Montanus Drive
 Culpeper, VA
 US 22701
 Contact: Matt Hanna
 mhanna@gflenv.com
 T: (540)727-0887
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Certificate L2367
 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)