



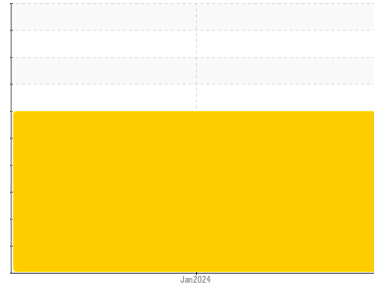
PROBLEM SUMMARY

Sample Rating Trend

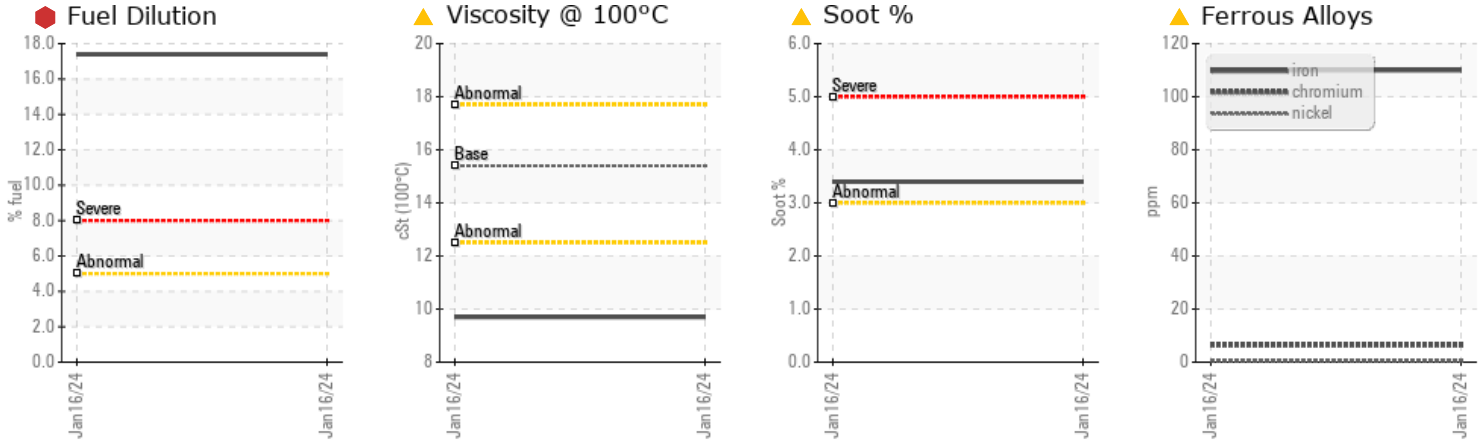
FUEL



Machine Id
724020
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	---	---
Iron	ppm	ASTM D5185m	>80	▲ 110	---	---
Chromium	ppm	ASTM D5185m	>5	▲ 6	---	---
Fuel	%	ASTM D3524	>5	● 17.4	---	---
Soot %	%	*ASTM D7844	>3	▲ 3.4	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	▲ 2.5	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 9.7	---	---

Customer Id: GFL952
Sample No.: GFL0093834
Lab Number: 06067354
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldrige +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 Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS



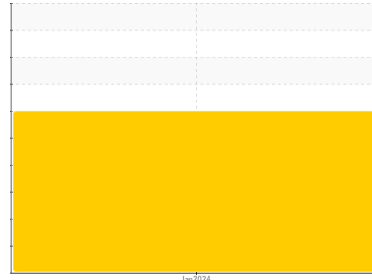
OIL ANALYSIS REPORT

Sample Rating Trend

FUEL



Machine Id
724020
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)



DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Wear

Cylinder, crank, or cam shaft wear is indicated.

Contamination

There is an abnormal amount of solids and carbon present in the oil. There is a high amount of fuel present in the oil.

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The BN level is low. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0093834	---	---
Sample Date	Client Info	16 Jan 2024	---	---
Machine Age	hrs	15332	---	---
Oil Age	hrs	600	---	---
Oil Changed	Client Info	Changed	---	---
Sample Status		SEVERE	---	---

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.2	NEG	---	---
Glycol	WC Method	NEG	---	---

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >80	▲ 110	---	---
Chromium	ppm ASTM D5185m >5	▲ 6	---	---
Nickel	ppm ASTM D5185m >2	<1	---	---
Titanium	ppm ASTM D5185m	0	---	---
Silver	ppm ASTM D5185m >3	0	---	---
Aluminum	ppm ASTM D5185m >30	6	---	---
Lead	ppm ASTM D5185m >30	<1	---	---
Copper	ppm ASTM D5185m >150	2	---	---
Tin	ppm ASTM D5185m >5	<1	---	---
Vanadium	ppm ASTM D5185m	0	---	---
Cadmium	ppm ASTM D5185m	0	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	2	---	---
Barium	ppm ASTM D5185m 0	0	---	---
Molybdenum	ppm ASTM D5185m 60	40	---	---
Manganese	ppm ASTM D5185m 0	1	---	---
Magnesium	ppm ASTM D5185m 1010	655	---	---
Calcium	ppm ASTM D5185m 1070	679	---	---
Phosphorus	ppm ASTM D5185m 1150	612	---	---
Zinc	ppm ASTM D5185m 1270	828	---	---
Sulfur	ppm ASTM D5185m 2060	1796	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >20	10	---	---
Sodium	ppm ASTM D5185m	2	---	---
Potassium	ppm ASTM D5185m >20	1	---	---
Fuel	% ASTM D3524 >5	▲ 17.4	---	---

INFRA-RED

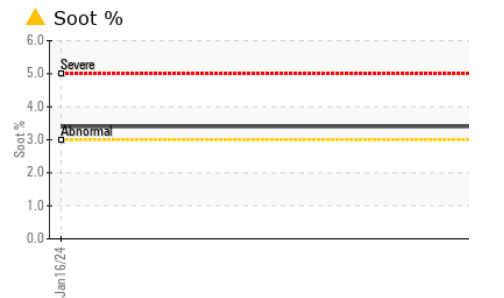
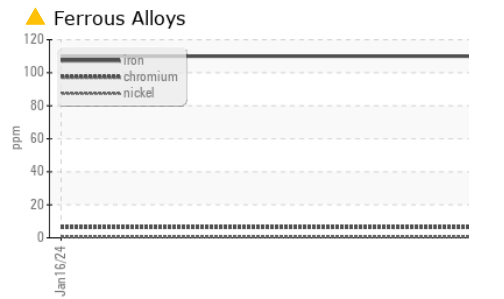
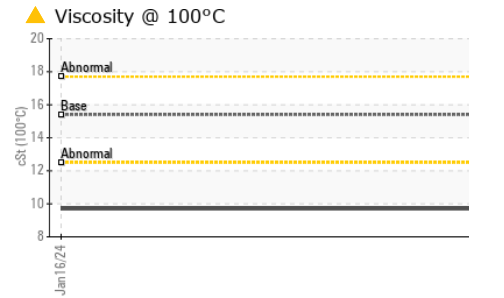
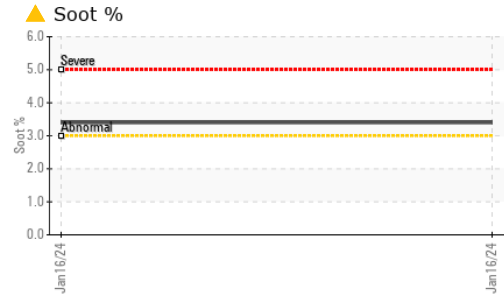
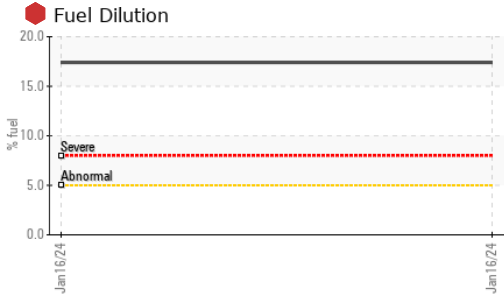
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	▲ 3.4	---	---
Nitration	Abs/cm *ASTM D7624 >20	17.6	---	---
Sulfation	Abs/.1mm *ASTM D7415 >30	33.7	---	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	38.6	---	---
Base Number (BN)	mg KOH/g ASTM D2896 9.8	▲ 2.5	---	---



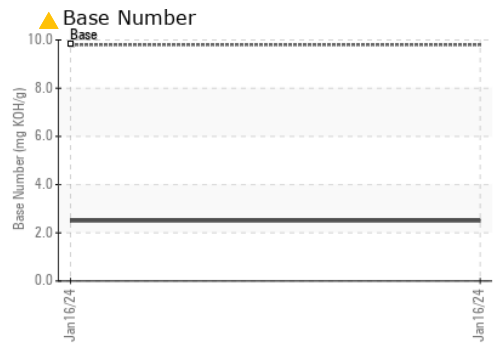
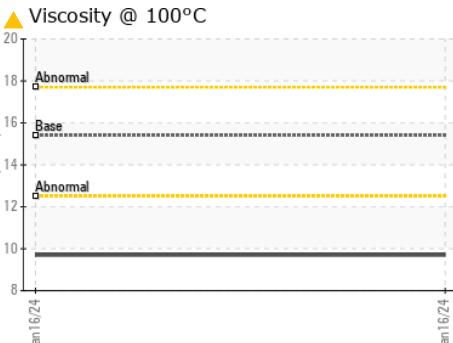
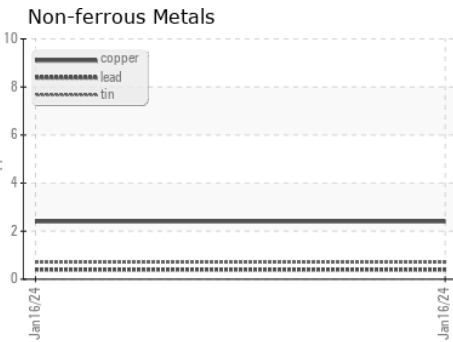
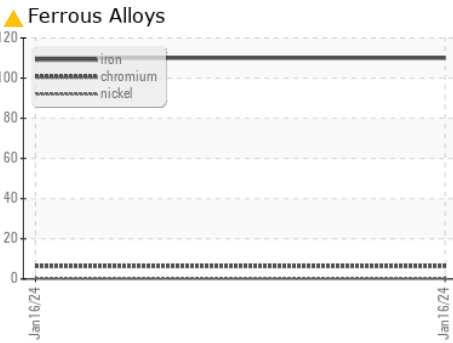
OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 9.7	---

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0093834 **Received** : 22 Jan 2024
Lab Number : 06067354 **Diagnosed** : 24 Jan 2024
Unique Number : 10844031 **Diagnostician** : Don Baldrige
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 952 - New London
 E8257 WIS-54
 NEW LONDON, WI
 US 54961
Contact: MATTHEW TAYLOR

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: (414)852-4404

F: