



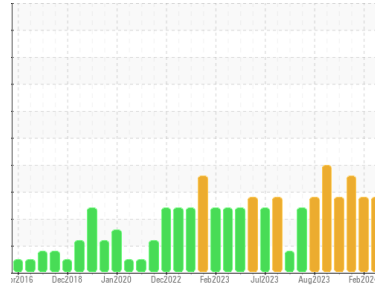
PROBLEM SUMMARY

Sample Rating Trend

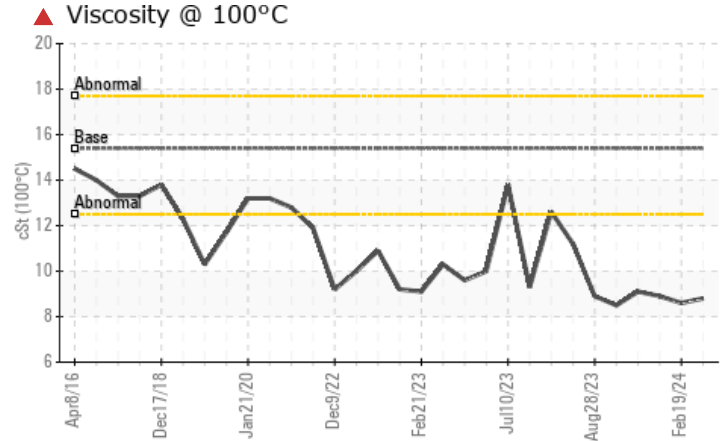
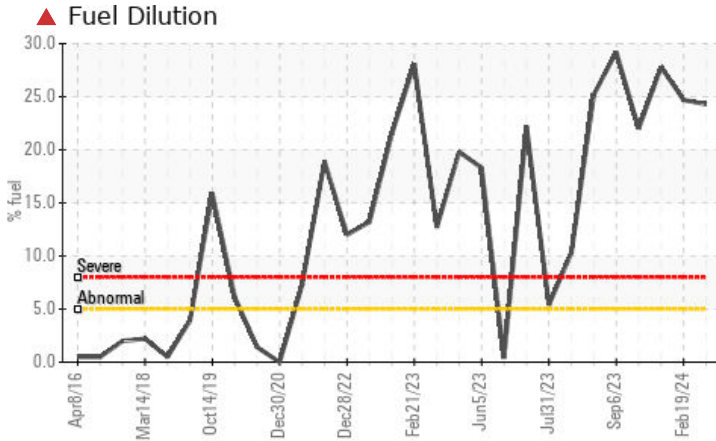
FUEL



Area
(EIS653)
 Machine Id
10591
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (32 QTS)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check the fuel injection system. 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				SEVERE	SEVERE	SEVERE
Fuel	%	ASTM D3524	>5	▲ 24.3	▲ 24.7	▲ 27.8
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 8.8	▲ 8.6	▲ 8.9

Customer Id: GFL073
 Sample No.: GFL0068839
 Lab Number: 06111039
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Sean Felton +1 919-379-4092
sfelton@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	---	---	?	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.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS

19 Feb 2024 Diag: Angela Borella

FUEL



We advise that you check the fuel injection system. 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. All component wear rates are normal. There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. 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 due to the presence of contaminants.

view report



22 Dec 2023 Diag: Jonathan Hester

FUEL



We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a high amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN level is low.

view report



27 Oct 2023 Diag: Wes Davis

FUEL



We advise that you check the fuel injection system. 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. All component wear rates are normal. There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. 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 due to the presence of contaminants.

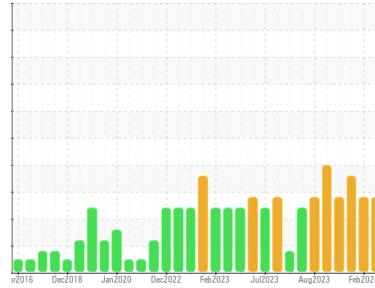
view report





OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Area
(EIS653)
Machine Id
10591

Component
Diesel Engine
Fluid

PETRO CANADA DURON SHP 15W40 (32 QTS)

DIAGNOSIS

▲ Recommendation

We advise that you check the fuel injection system. 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

All component wear rates are normal.

▲ Contamination

There is a high 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 due to the presence of contaminants.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0068839	GFL0068894	GFL0097159
Sample Date	Client Info	01 Mar 2024	19 Feb 2024	22 Dec 2023
Machine Age	hrs	22848	22799	22382
Oil Age	hrs	466	417	951
Oil Changed	Client Info	Not Chngd	Not Chngd	Changed
Sample Status		SEVERE	SEVERE	SEVERE

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	49	40	40
Chromium	ppm ASTM D5185m >20	3	3	2
Nickel	ppm ASTM D5185m >4	<1	<1	0
Titanium	ppm ASTM D5185m	0	0	0
Silver	ppm ASTM D5185m >3	0	0	0
Aluminum	ppm ASTM D5185m >20	3	3	2
Lead	ppm ASTM D5185m >40	0	<1	0
Copper	ppm ASTM D5185m >330	<1	<1	0
Tin	ppm ASTM D5185m >15	0	<1	2
Vanadium	ppm ASTM D5185m	<1	0	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	2	2	0
Barium	ppm ASTM D5185m 0	0	0	0
Molybdenum	ppm ASTM D5185m 60	39	41	34
Manganese	ppm ASTM D5185m 0	<1	<1	<1
Magnesium	ppm ASTM D5185m 1010	616	644	553
Calcium	ppm ASTM D5185m 1070	692	679	611
Phosphorus	ppm ASTM D5185m 1150	648	675	614
Zinc	ppm ASTM D5185m 1270	734	853	800
Sulfur	ppm ASTM D5185m 2060	1821	1866	1657

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	11	10	11
Sodium	ppm ASTM D5185m	6	5	4
Potassium	ppm ASTM D5185m >20	<1	2	9
Fuel	% ASTM D3524 >5	▲ 24.3	▲ 24.7	▲ 27.8

INFRA-RED

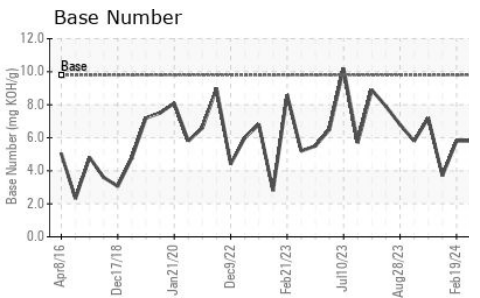
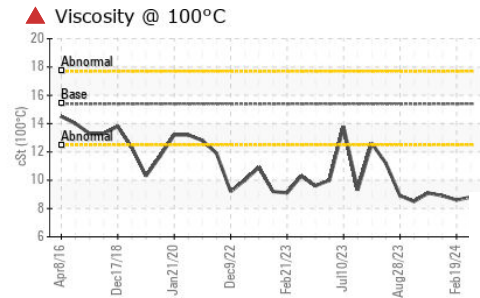
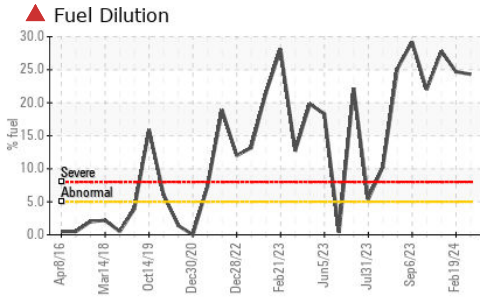
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	1.7	1.6	0.7
Nitration	Abs/cm *ASTM D7624 >20	16.7	15.8	15.1
Sulfation	Abs/.1mm *ASTM D7415 >30	26.4	25.7	24.7

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	30.8	29.0	32.5
Base Number (BN)	mg KOH/g ASTM D2896 9.8	5.8	5.8	▲ 3.7



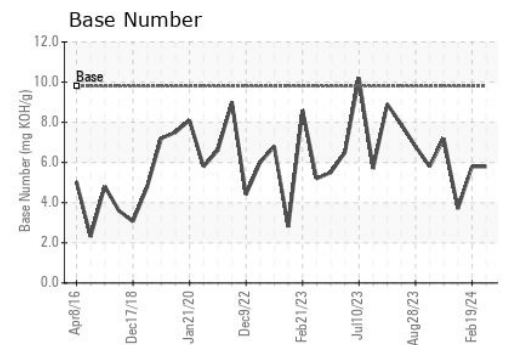
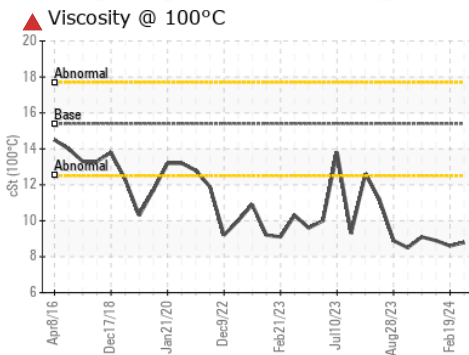
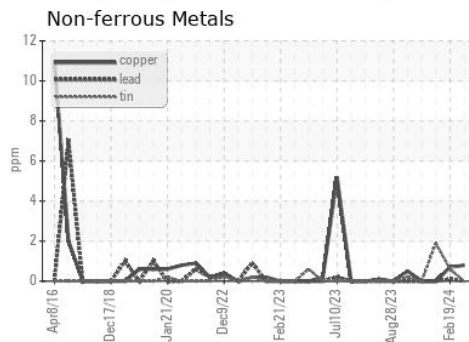
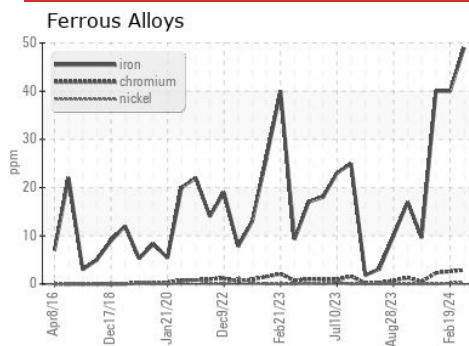
OIL ANALYSIS REPORT



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 ▲ 8.8	▲ 8.6	▲ 8.9

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : GFL0068839

Lab Number : 06111039

Unique Number : 10914536

Test Package : FLEET (Additional Tests: PercentFuel)

Received : 07 Mar 2024

Tested : 11 Mar 2024

Diagnosed : 11 Mar 2024 - Sean Felton

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: