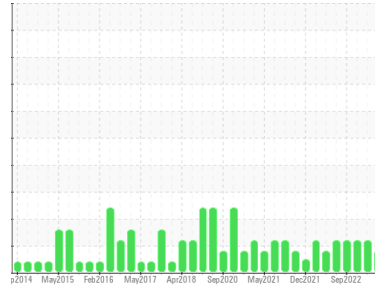




PROBLEM SUMMARY

Sample Rating Trend



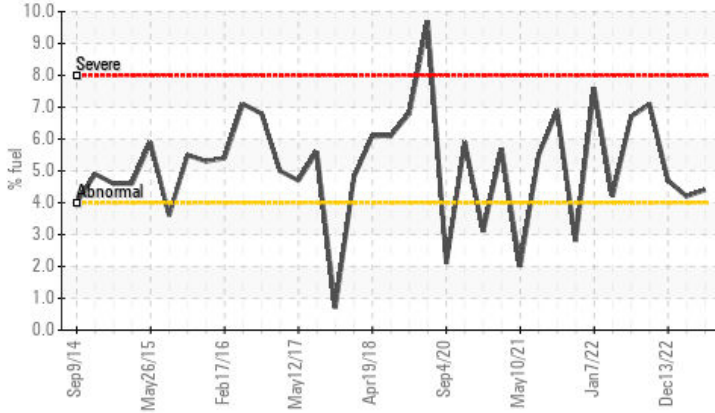
FUEL



Machine Id
2405
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (50 QTS)

COMPONENT CONDITION SUMMARY

▲ Fuel Dilution



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	ABNORMAL	ABNORMAL
Fuel	%	ASTM D3524	>4.0	▲ 4.4	▲ 4.2	▲ 4.7

Customer Id: GFL017
 Sample No.: GFL0088570
 Lab Number: 05900655
 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 May 2023 Diag: Wes Davis

FUEL



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 moderate 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](#)



13 Dec 2022 Diag: Jonathan Hester

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](#)



17 Sep 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.

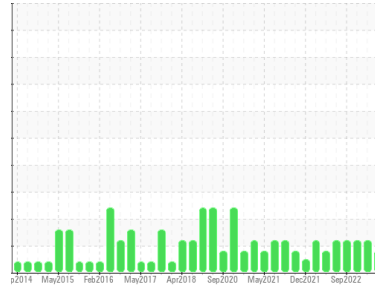
[view report](#)





OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
2405

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (50 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

Metal levels are typical for a new component breaking in.

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. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0088570	GFL0061169	GFL0065770
Sample Date	Client Info	17 Jul 2023	09 May 2023	13 Dec 2022
Machine Age	hrs	497	136575	136575
Oil Age	hrs	497	640	436
Oil Changed	Client Info	N/A	N/A	Changed
Sample Status		ABNORMAL	ABNORMAL	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 >80	8	14	11
Chromium	ppm	ASTM D5185m >6	<1	<1	<1
Nickel	ppm	ASTM D5185m >2	<1	2	0
Titanium	ppm	ASTM D5185m >2	<1	0	0
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >20	4	7	4
Lead	ppm	ASTM D5185m >95	<1	<1	0
Copper	ppm	ASTM D5185m >85	<1	2	<1
Tin	ppm	ASTM D5185m >9	<1	1	<1
Vanadium	ppm	ASTM D5185m	<1	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0	0	5	9
Barium	ppm	ASTM D5185m 0	1	0	0
Molybdenum	ppm	ASTM D5185m 60	60	57	60
Manganese	ppm	ASTM D5185m 0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 1010	978	854	717
Calcium	ppm	ASTM D5185m 1070	1085	1052	1146
Phosphorus	ppm	ASTM D5185m 1150	1026	946	888
Zinc	ppm	ASTM D5185m 1270	1293	1180	1057
Sulfur	ppm	ASTM D5185m 2060	3701	3494	3243

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	4	7	4
Sodium	ppm	ASTM D5185m	4	8	7
Potassium	ppm	ASTM D5185m >20	5	3	0
Fuel	%	ASTM D3524 >4.0	▲ 4.4	▲ 4.2	▲ 4.7

INFRA-RED

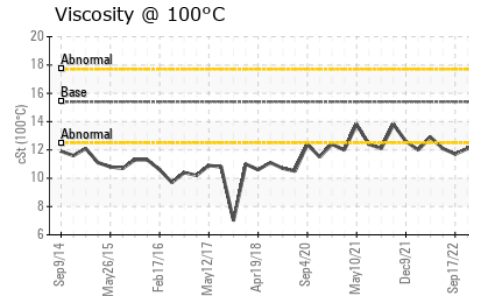
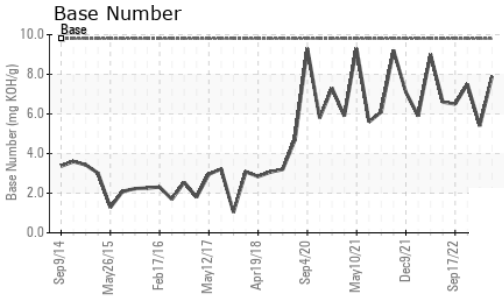
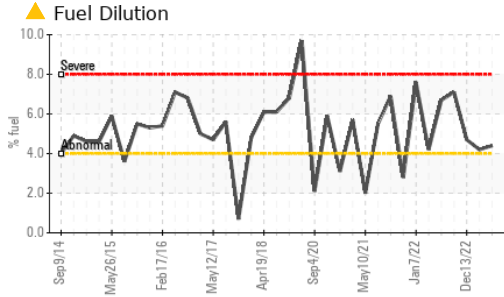
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	0.4	0.5	0.6
Nitration	Abs/cm	*ASTM D7624 >20	7.8	8.5	10.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.2	19.5	20.5

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	15.4	16.5	16.2
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	7.9	5.4	7.5



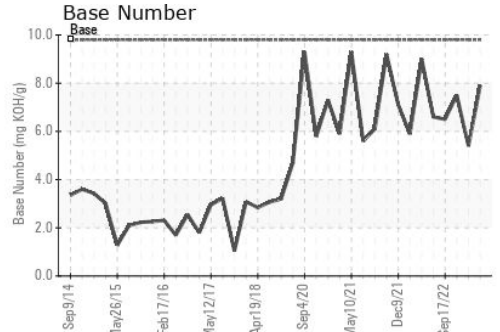
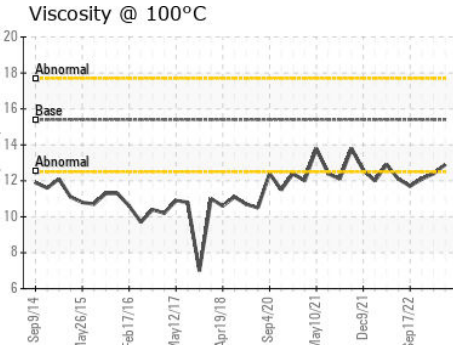
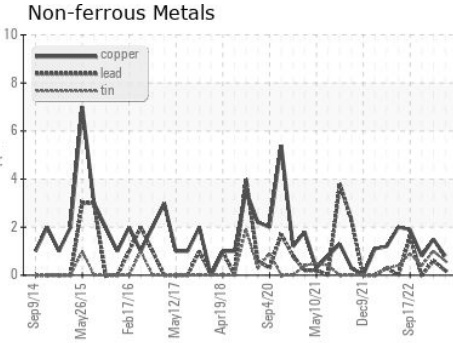
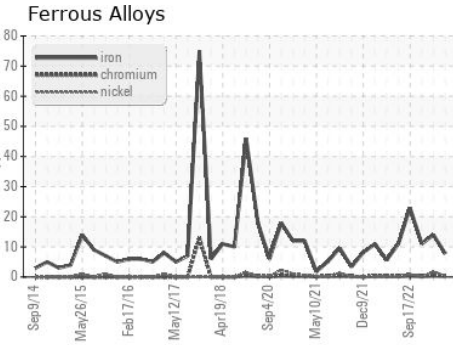
OIL ANALYSIS REPORT



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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	12.9	▲ 12.4 ▲ 12.1

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0088570 **Received** : 17 Jul 2023
Lab Number : 05900655 **Diagnosed** : 19 Jul 2023
Unique Number : 10562011 **Diagnostician** : Wes Davis
Test Package : FLEET (Additional Tests: PercentFuel)

GFL Environmental - 017 - Durham
 148 Stone Park Court
 Durham, NC
 US 27703
 Contact: Shane Parks
 shane.parks@gflenv.com
 T: (919)596-1363
 F: (919)598-1852

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)