

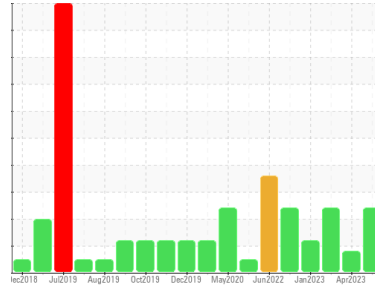


PROBLEM SUMMARY

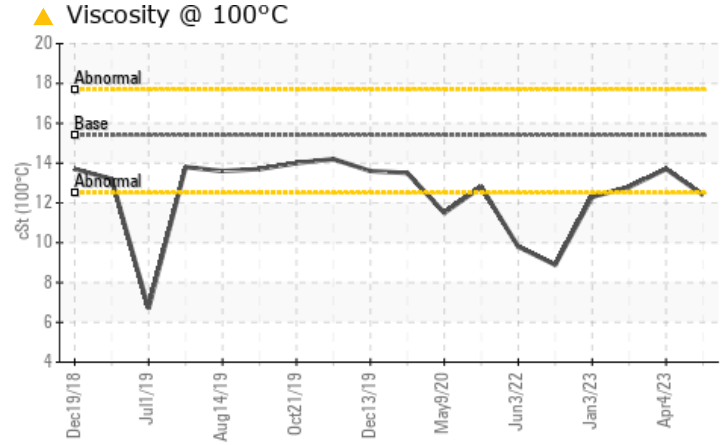
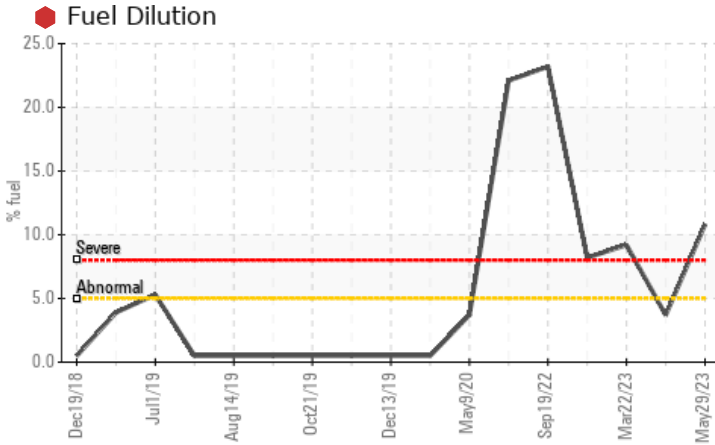
Area
[407828]
Machine Id
727090-361682

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

Sample Rating Trend



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. (Customer Sample Comment: 407828)

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	MARGINAL	SEVERE
Fuel	%	ASTM D3524	>5	10.8	3.7	9.2
Visc @ 100°C	cSt	ASTM D445	15.4	12.4	13.7	12.8

Customer Id: GFL865
Sample No.: GFL0083505
Lab Number: 05865459
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 Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.
Resample	MISSED	Jul 06 2023	?	We recommend an early resample to monitor this condition.
Check Fuel/injector System	MISSED	Jul 06 2023	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS

04 Apr 2023 Diag: Angela Borella

FUEL



We advise that you check the fuel injection system. We recommend an early resample to monitor this condition. Metal levels are typical for a new component breaking in. Light fuel dilution occurring. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report



22 Mar 2023 Diag: Doug Bogart

FUEL



We advise that you check the fuel injection system. Oil and filter 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 result indicates that there is suitable alkalinity remaining in the oil.

view report



03 Jan 2023 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. 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 result indicates that there is suitable alkalinity remaining in the oil.

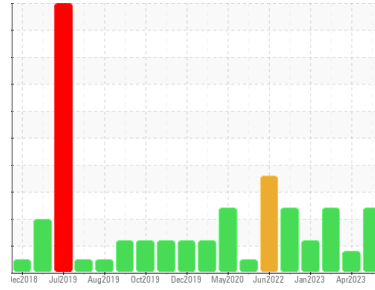
view report





OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Area
[407828]
 Machine Id
727090-361682

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

DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. (Customer Sample Comment: 407828)

Wear

All component wear rates are normal.

Contamination

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 result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0083505	GFL0065139	GFL0074178
Sample Date	Client Info	29 May 2023	04 Apr 2023	22 Mar 2023
Machine Age	hrs	14592	14269	14170
Oil Age	hrs	14592	14269	14170
Oil Changed	Client Info	Changed	N/A	Changed
Sample Status		SEVERE	MARGINAL	SEVERE

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	26	6	35
Chromium	ppm	ASTM D5185m >20	1	0	2
Nickel	ppm	ASTM D5185m >4	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >20	2	1	3
Lead	ppm	ASTM D5185m >40	0	0	1
Copper	ppm	ASTM D5185m >330	<1	0	<1
Tin	ppm	ASTM D5185m >15	0	0	<1
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	0	0	0
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 60	56	51	55
Manganese	ppm	ASTM D5185m 0	0	<1	1
Magnesium	ppm	ASTM D5185m 1010	902	802	856
Calcium	ppm	ASTM D5185m 1070	1021	950	1023
Phosphorus	ppm	ASTM D5185m 1150	907	862	882
Zinc	ppm	ASTM D5185m 1270	1133	1011	1077
Sulfur	ppm	ASTM D5185m 2060	3167	2585	2646

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	5	3	7
Sodium	ppm	ASTM D5185m	12	5	18
Potassium	ppm	ASTM D5185m >20	1	0	0
Fuel	%	ASTM D3524 >5	10.8	3.7	9.2

INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >3	1.3	0.3	0.7
Nitration	Abs/cm	*ASTM D7624 >20	14.2	7.7	12.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	25.5	19.1	24.1

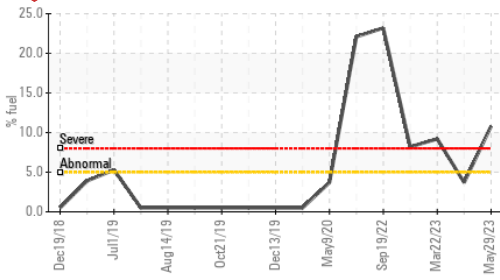
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	24.0	15.3	23.0
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	6.5	8.6	7.1

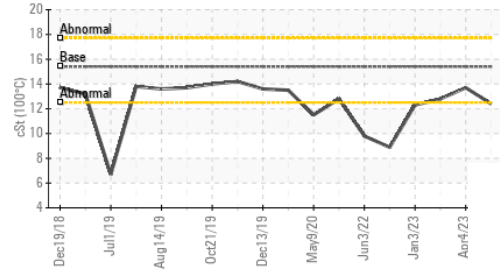


OIL ANALYSIS REPORT

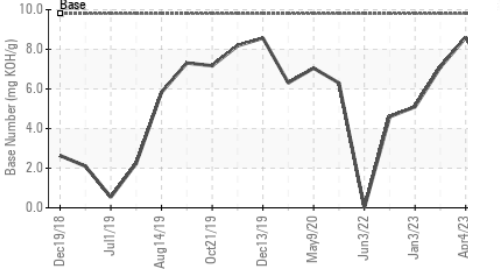
Fuel Dilution



Viscosity @ 100°C



Base Number



VISUAL

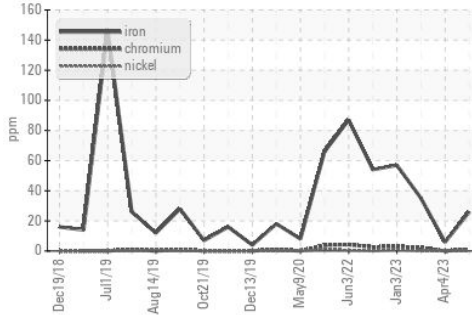
	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*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

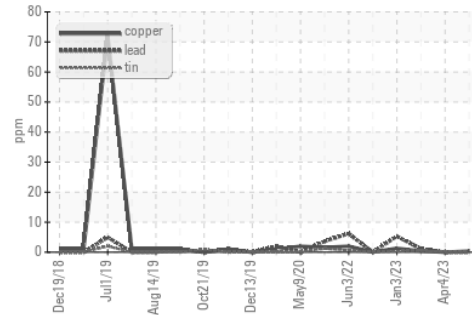
	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 12.4	13.7

GRAPHS

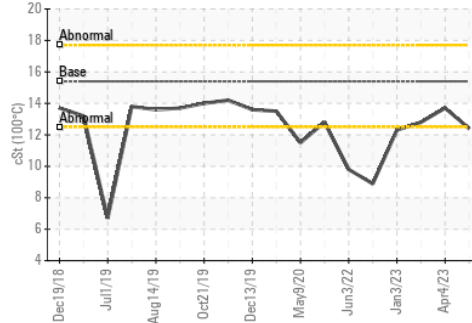
Ferrous Alloys



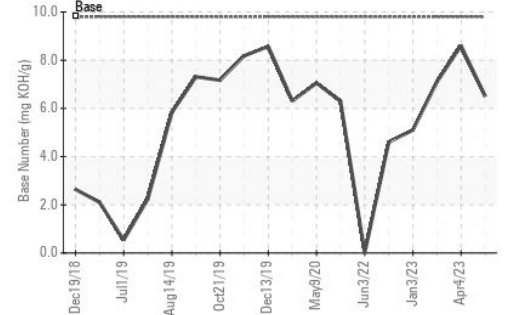
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0083505 **Received** : 06 Jun 2023
Lab Number : 05865459 **Diagnosed** : 07 Jun 2023
Unique Number : 10499924 **Diagnostician** : Don Baldrige
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 865 - East Mount Hauling
 7213 East Mount Houston Road
 Houston, TX
 US 77050
 Contact: Saul Castillo
 saul.castillo@gflenv.com

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: