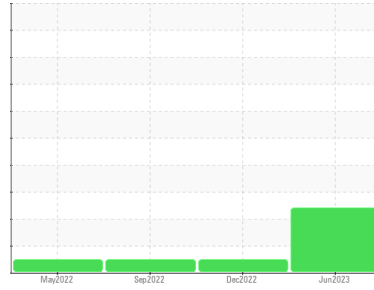




PROBLEM SUMMARY

Sample Rating Trend



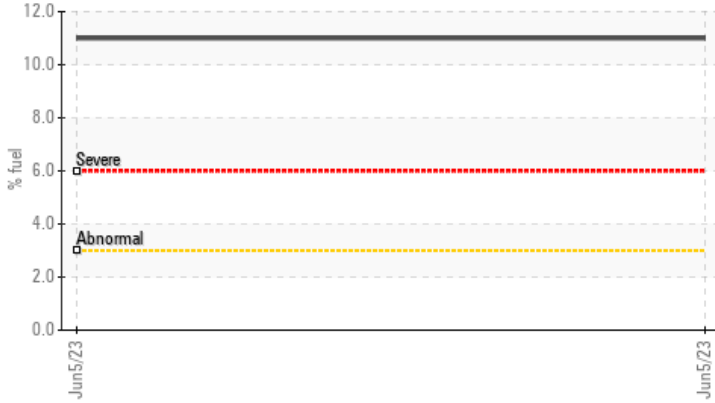
FUEL



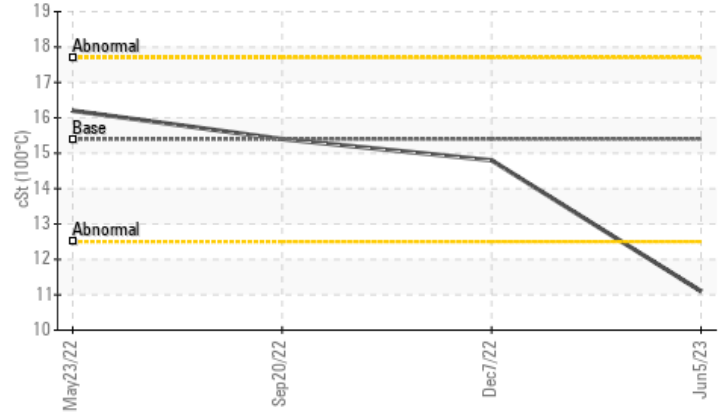
Machine Id
4626M
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- QTS)

COMPONENT CONDITION SUMMARY

Fuel Dilution



Viscosity @ 100°C



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.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	NORMAL
Fuel	%	ASTM D3524	>3.0	11.0	<1.0	<1.0
Visc @ 100°C	cSt	ASTM D445	15.4	11.1	14.8	15.4

Customer Id: GFL405
 Sample No.: GFL0072952
 Lab Number: 05885408
 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	---	---	?	We recommend an early resample to monitor this condition.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS

07 Dec 2022 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is no indication of any contamination 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



20 Sep 2022 Diag: Jonathan Hester

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination 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



23 May 2022 Diag: Jonathan Hester

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination 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





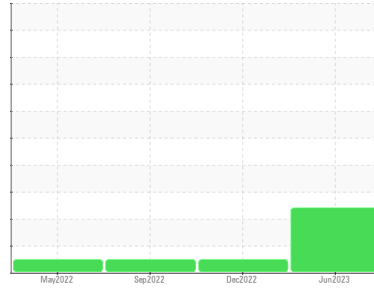
OIL ANALYSIS REPORT

Sample Rating Trend

FUEL



Machine Id
4626M
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- QTS)



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.

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

SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number	Client Info		GFL0072952	GFL0060722	GFL0060689
Sample Date	Client Info		05 Jun 2023	07 Dec 2022	20 Sep 2022
Machine Age	hrs	Client Info	18968	18071	17494
Oil Age	hrs	Client Info	897	577	540
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			SEVERE	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history 1	history 2
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >90	53	17	29
Chromium	ppm	ASTM D5185m >20	2	<1	1
Nickel	ppm	ASTM D5185m >2	<1	<1	0
Titanium	ppm	ASTM D5185m >2	<1	0	0
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >20	2	3	4
Lead	ppm	ASTM D5185m >40	2	1	4
Copper	ppm	ASTM D5185m >330	3	<1	2
Tin	ppm	ASTM D5185m >15	1	<1	<1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m 0	36	5	6
Barium	ppm	ASTM D5185m 0	2	0	0
Molybdenum	ppm	ASTM D5185m 60	40	62	69
Manganese	ppm	ASTM D5185m 0	6	<1	<1
Magnesium	ppm	ASTM D5185m 1010	453	984	1104
Calcium	ppm	ASTM D5185m 1070	1436	1178	1301
Phosphorus	ppm	ASTM D5185m 1150	630	1026	1144
Zinc	ppm	ASTM D5185m 1270	828	1383	1434
Sulfur	ppm	ASTM D5185m 2060	2352	3328	3670

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	22	5	5
Sodium	ppm	ASTM D5185m	19	7	2
Potassium	ppm	ASTM D5185m >20	3	<1	0
Fuel	%	ASTM D3524 >3.0	11.0	<1.0	<1.0

INFRA-RED

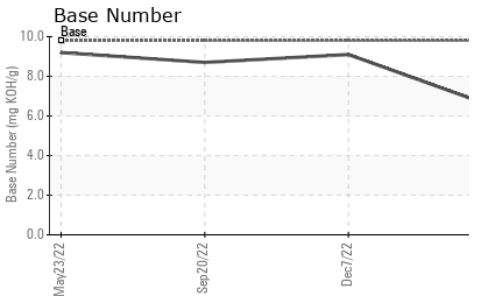
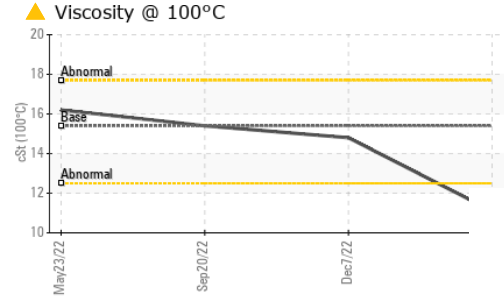
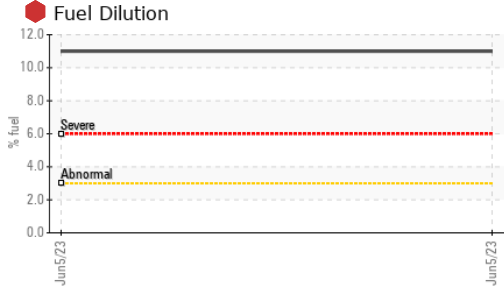
	method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844 >6	0.6	0.3	0.2
Nitration	Abs/cm	*ASTM D7624 >20	13.6	11.0	13.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	24.3	24.3	28.2

FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414 >25	28.5	23.2	29.4
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	6.5	9.1	8.7



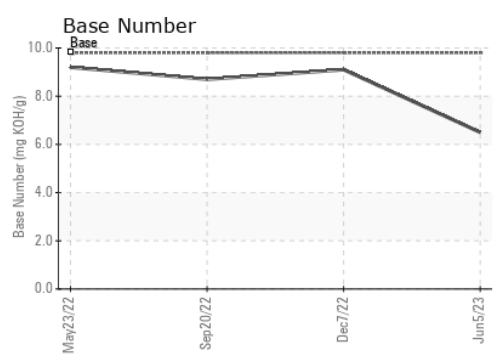
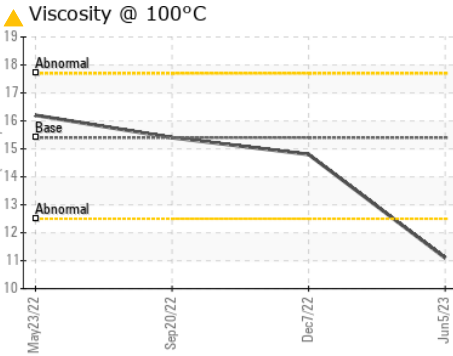
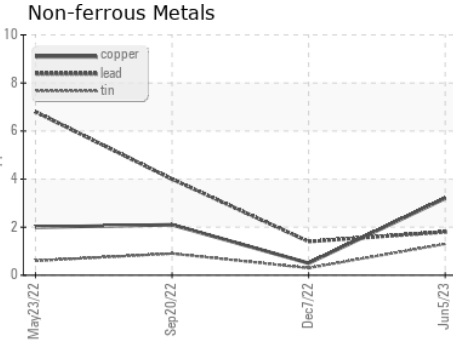
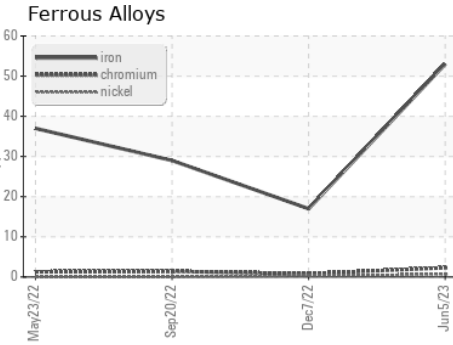
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2
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	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	15.4 ▲ 11.1	14.8	15.4

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0072952 **Received** : 28 Jun 2023
Lab Number : 05885408 **Diagnosed** : 30 Jun 2023
Unique Number : 10535891 **Diagnostician** : Don Baldrige
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 405 - Arbor Hills
 7400 Napier Rd
 NORTHVILLE, MI
 US 48168
 Contact: John Nahal
 jnahal@gflenv.com

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)