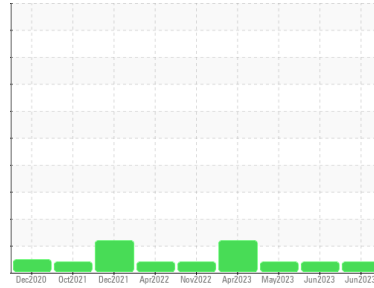




PROBLEM SUMMARY

Sample Rating Trend



VISCOSITY



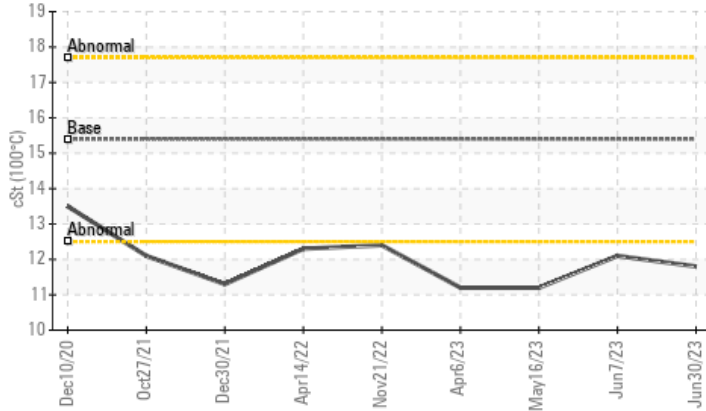
Machine Id
729041-361666

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Viscosity @ 100°C



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	ATTENTION	ATTENTION
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.8	▲ 12.1	▲ 11.2

Customer Id: GFL814
Sample No.: GFL0082665
Lab Number: 05890751
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@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	---	---	?	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.

HISTORICAL DIAGNOSIS

07 Jun 2023 Diag: Sean Felton

VISCOSITY



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 no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

[view report](#)



16 May 2023 Diag: Don Baldrige

VISCOSITY



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 no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

[view report](#)



06 Apr 2023 Diag: Wes Davis

FUEL



The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample. Metal levels are typical for a components first oil change. Light fuel dilution occurring. 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 condition of the oil is suitable for further service.

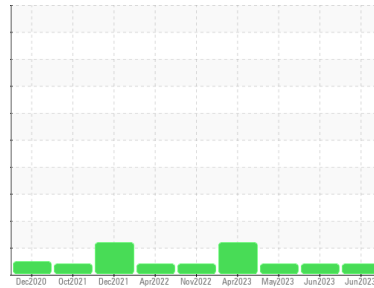
[view report](#)





OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
729041-361666

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

▲ Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

▲ Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0082665	GFL0082673	GFL0082635
Sample Date	Client Info	30 Jun 2023	07 Jun 2023	16 May 2023
Machine Age	hrs	19275	19146	18993
Oil Age	hrs	129	153	18993
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		ATTENTION	ATTENTION	ATTENTION

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	36	20	45
Chromium	ppm	ASTM D5185m >20	2	<1	2
Nickel	ppm	ASTM D5185m >4	<1	<1	<1
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >20	2	2	7
Lead	ppm	ASTM D5185m >40	2	1	3
Copper	ppm	ASTM D5185m >330	2	2	4
Tin	ppm	ASTM D5185m >15	<1	<1	<1
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	7	10	3
Barium	ppm	ASTM D5185m 0	0	2	0
Molybdenum	ppm	ASTM D5185m 60	74	79	60
Manganese	ppm	ASTM D5185m 0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 1010	932	911	955
Calcium	ppm	ASTM D5185m 1070	1056	1061	1118
Phosphorus	ppm	ASTM D5185m 1150	969	1035	995
Zinc	ppm	ASTM D5185m 1270	1191	1203	1249
Sulfur	ppm	ASTM D5185m 2060	3498	3255	3361

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	7	5	9
Sodium	ppm	ASTM D5185m	6	2	8
Potassium	ppm	ASTM D5185m >20	7	7	2
Fuel	%	ASTM D3524 >2.0	<1.0	<1.0	<1.0

INFRA-RED

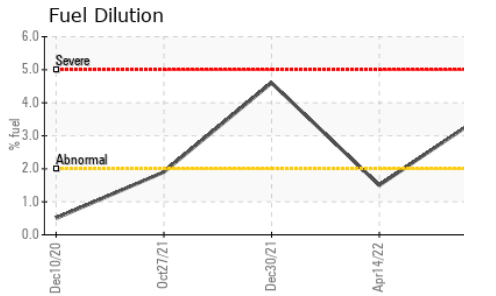
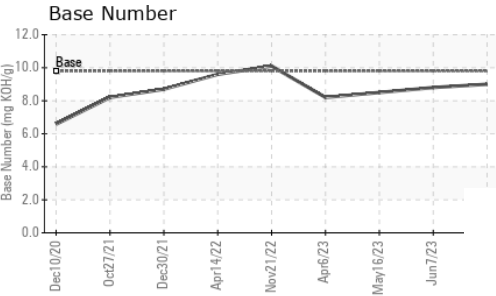
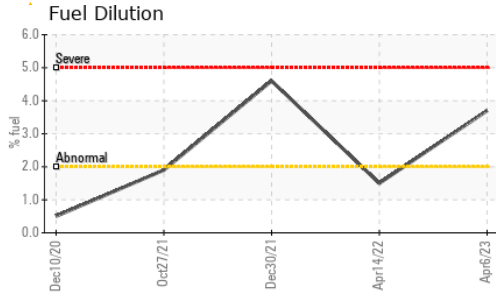
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >3	1.1	0.6	0.8
Nitration	Abs/cm	*ASTM D7624 >20	7.6	6.2	8.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	20.2	18.8	19.9

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	14.3	13.1	14.9
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	9.0	8.8	8.5



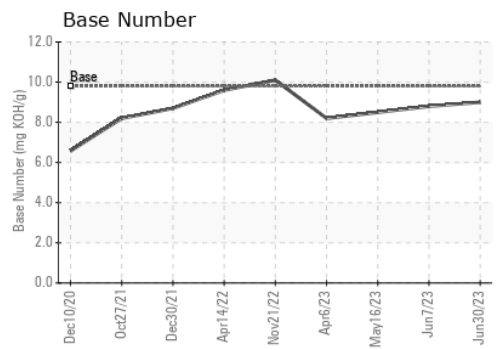
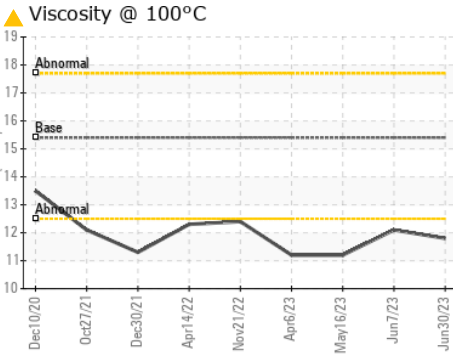
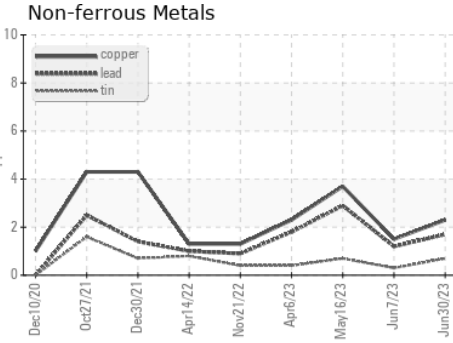
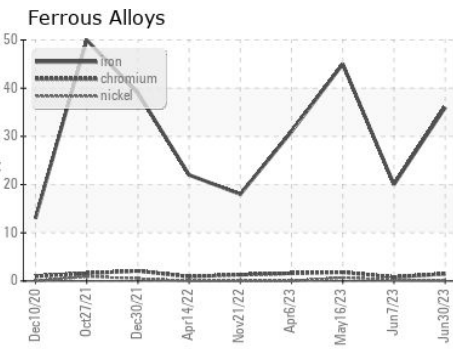
OIL ANALYSIS REPORT



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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.8	▲ 12.1

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0082665 **Received** : 05 Jul 2023
Lab Number : 05890751 **Diagnosed** : 06 Jul 2023
Unique Number : 10546561 **Diagnostician** : Jonathan Hester
Test Package : FLEET (Additional Tests: FuelDilution)

GFL Environmental - 814 - Little Rock Hauling
 4005 Hwy 161 N.
 Little Rock, AR
 US 72117
 Contact: Brad Manager

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: