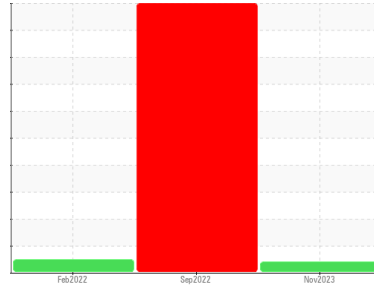




PROBLEM SUMMARY

Sample Rating Trend



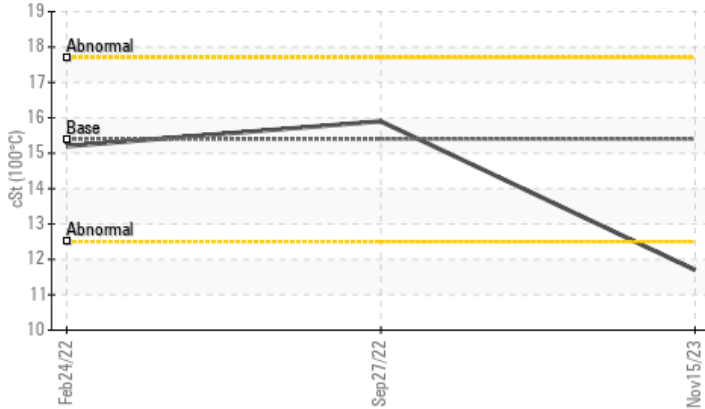
VISCOSITY



Machine Id
769M
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (36 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	SEVERE	NORMAL
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.7	15.9	15.2

Customer Id: GFL410
 Sample No.: GFL0059260
 Lab Number: 06014783
 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

27 Sep 2022 Diag: Doug Bogart

GLYCOL



We advise that you check for the source of the coolant leak. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. NOTE: High contamination in the sample have limited the accuracy of Infra-Red data including Total Base Number (TBN) value. All component wear rates are normal. Sodium and/or potassium levels are high. Test for glycol is positive. Elemental level of silicon (Si) above normal indicating ingress of seal material. The oil is no longer serviceable due to the presence of contaminants.

[view report](#)



24 Feb 2022 Diag: Aaron Black

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.

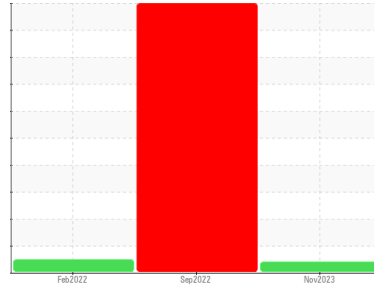
[view report](#)





OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
769M
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (36 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

Fuel content negligible. 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	GFL0059260	GFL0059199	GFL0018457	
Sample Date	Client Info	15 Nov 2023	27 Sep 2022	24 Feb 2022	
Machine Age	mls	Client Info	120311	110686	9037
Oil Age	mls	Client Info	120311	110686	0
Oil Changed	Client Info	Changed	Changed	N/A	
Sample Status		ATTENTION	SEVERE	NORMAL	

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>75	12	10	55
Chromium	ppm	ASTM D5185m	>5	<1	<1	2
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>15	2	3	4
Lead	ppm	ASTM D5185m	>25	<1	<1	<1
Copper	ppm	ASTM D5185m	>100	37	4	2
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Antimony	ppm	ASTM D5185m		---	---	0
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	<1

ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185m	0	10	119	5
Barium	ppm	ASTM D5185m	0	0	3	0
Molybdenum	ppm	ASTM D5185m	60	48	138	59
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	718	882	991
Calcium	ppm	ASTM D5185m	1070	864	1048	1107
Phosphorus	ppm	ASTM D5185m	1150	830	991	1062
Zinc	ppm	ASTM D5185m	1270	1004	1173	1351
Sulfur	ppm	ASTM D5185m	2060	2400	3593	2520

CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>25	9	▲ 55	7
Sodium	ppm	ASTM D5185m		4	▲ 2404	4
Potassium	ppm	ASTM D5185m	>20	<1	10	3
Fuel	%	ASTM D3524	>3.0	0.5	<1.0	<1.0
Glycol	%	*ASTM D2982		0.0	◆ 0.10	NEG

INFRA-RED

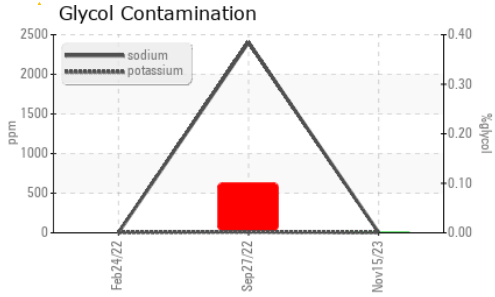
method	limit/base	current	history1	history2		
Soot %	%	*ASTM D7844	>6	0.2	0.2	3
Nitration	Abs/cm	*ASTM D7624	>20	5.7	9.9	16.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.3	22.2	30.0

FLUID DEGRADATION

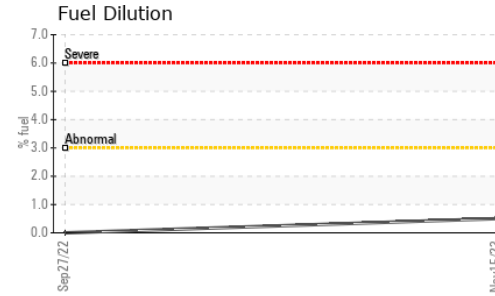
method	limit/base	current	history1	history2		
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.8	14.9	25.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.1	▲ 21.6	10



OIL ANALYSIS REPORT

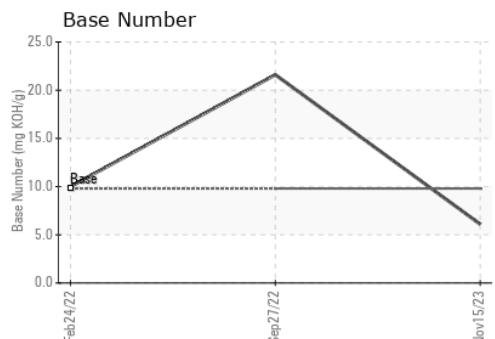
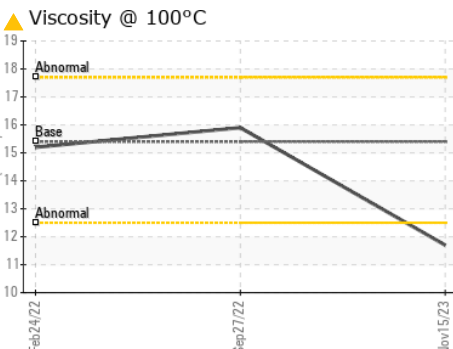
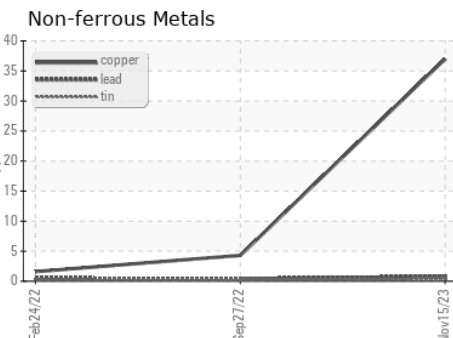
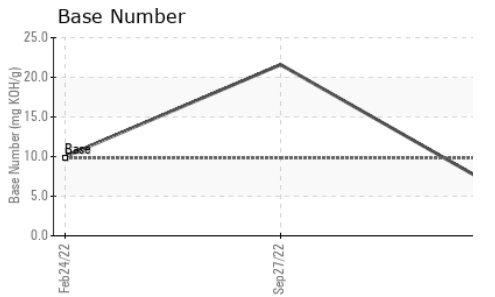
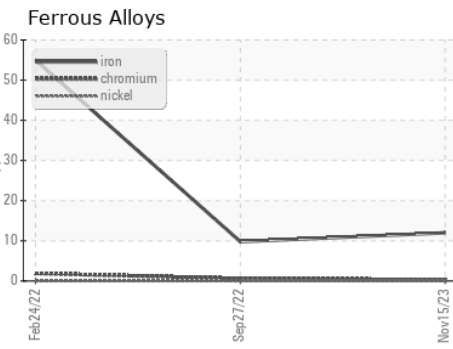
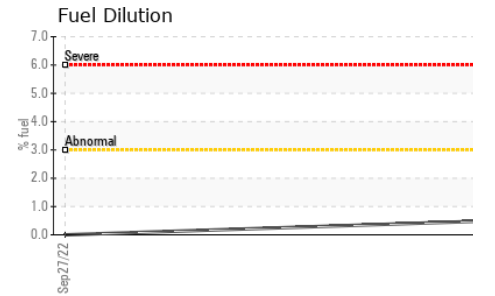


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	▲ 11.7	15.9

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0059260 **Received** : 22 Nov 2023
Lab Number : 06014783 **Diagnosed** : 27 Nov 2023
Unique Number : 10753927 **Diagnostician** : Jonathan Hester
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 410 - Michigan West
 39000 Van Born Rd
 Wayne, MI
 US 48184
 Contact: Belal Dgheish
 bdgheish@gflenv.com
 T: (734)714-2340
 F:

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)