



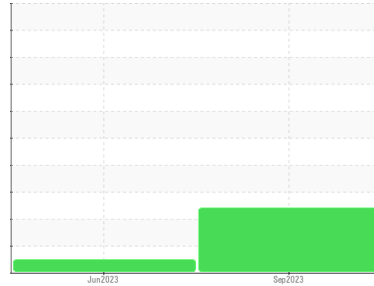
OIL ANALYSIS REPORT

Sample Rating Trend

FUEL



Area
GFL216
Machine Id
401081
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)



DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. The oil 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. Tests confirm the presence of fuel 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	history1	history2
Sample Number	Client Info		GFL0093792	GFL0087420	---
Sample Date	Client Info		26 Sep 2023	29 Jun 2023	---
Machine Age	kms	Client Info	362986	357197	---
Oil Age	kms	Client Info	0	0	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			SEVERE	NORMAL	---

CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >120	30	44	---
Chromium	ppm	ASTM D5185(m) >20	<1	1	---
Nickel	ppm	ASTM D5185(m) >5	0	<1	---
Titanium	ppm	ASTM D5185(m) >2	0	0	---
Silver	ppm	ASTM D5185(m) >2	<1	0	---
Aluminum	ppm	ASTM D5185(m) >20	1	1	---
Lead	ppm	ASTM D5185(m) >40	2	7	---
Copper	ppm	ASTM D5185(m) >330	7	16	---
Tin	ppm	ASTM D5185(m) >15	<1	1	---
Antimony	ppm	ASTM D5185(m)	0	0	---
Vanadium	ppm	ASTM D5185(m)	0	0	---
Beryllium	ppm	ASTM D5185(m)	0	0	---
Cadmium	ppm	ASTM D5185(m)	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 0	4	4	---
Barium	ppm	ASTM D5185(m) 0	<1	0	---
Molybdenum	ppm	ASTM D5185(m) 60	58	58	---
Manganese	ppm	ASTM D5185(m) 0	0	<1	---
Magnesium	ppm	ASTM D5185(m) 1010	911	937	---
Calcium	ppm	ASTM D5185(m) 1070	1004	998	---
Phosphorus	ppm	ASTM D5185(m) 1150	954	1001	---
Zinc	ppm	ASTM D5185(m) 1270	1138	1158	---
Sulfur	ppm	ASTM D5185(m) 2060	2372	2253	---
Lithium	ppm	ASTM D5185(m)	<1	<1	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	2	2	---
Sodium	ppm	ASTM D5185(m)	2	2	---
Potassium	ppm	ASTM D5185(m) >20	2	<1	---
Fuel	%	ASTM D7593* >3.0	5.7	<1.0	---

INFRA-RED

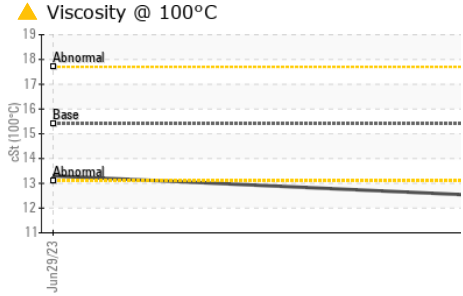
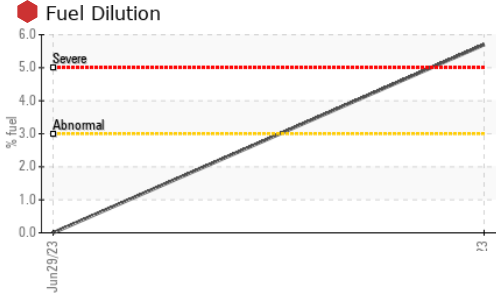
	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >4	1.6	2.7	---
Nitration	Abs/cm	ASTM D7624* >20	7.9	9.6	---
Sulfation	Abs/.1mm	ASTM D7415* >30	20.9	24.4	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	13.8	15.2	---



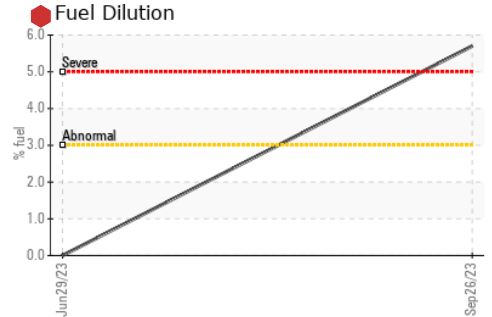
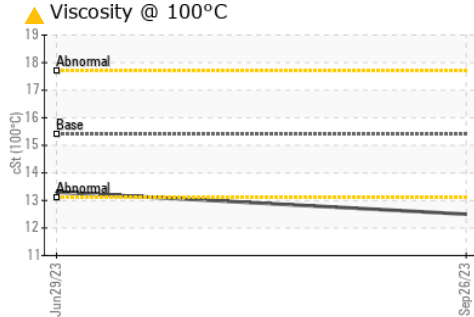
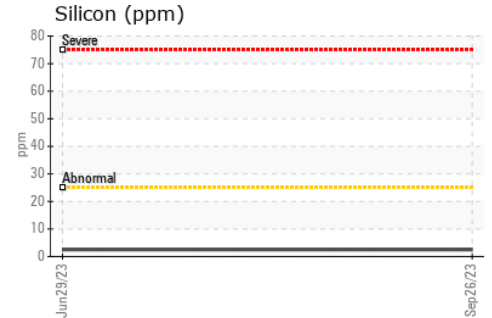
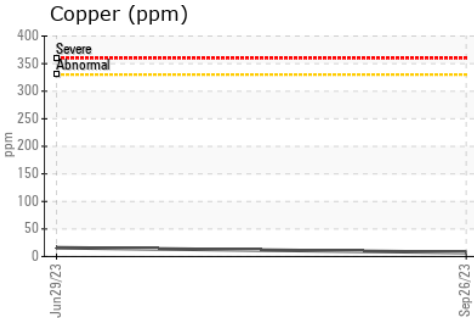
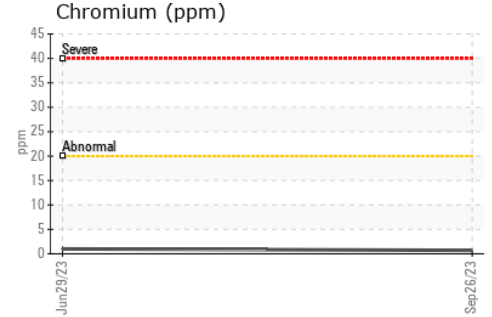
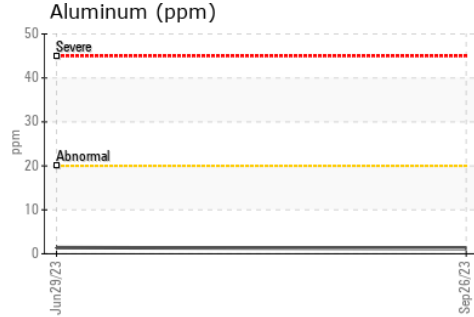
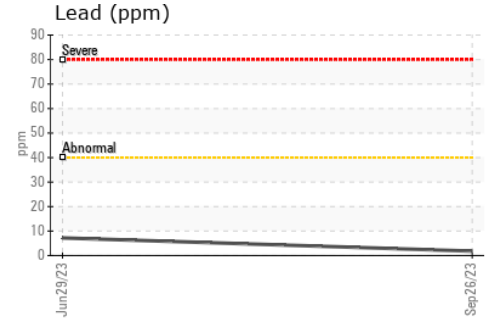
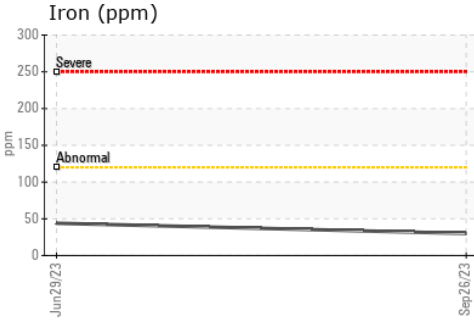
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
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 D7279(m)	15.4	▲ 12.5	13.3

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 252 - GTA Hauling
Sample No. : GFL0093792 **Received** : 20 Oct 2023 3668 Weston Road
Lab Number : 02590518 **Diagnosed** : 23 Oct 2023 North York, ON
Unique Number : 5659584 **Diagnostician** : Wes Davis CA M9L 1W2
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel) Contact: Amanda Cipollone
acipollone@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.