

Machine Id
401171
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

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. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0073068	GFL0096847	---
Sample Date		Client Info		02 Apr 2024	08 Feb 2024	---
Machine Age	kms	Client Info		322840	4481	---
Oil Age	kms	Client Info		0	610	---
Filter Age	kms	Client Info		0	610	---
Oil Changed		Client Info		Changed	N/A	---
Filter Changed		Client Info		Changed	N/A	---
Sample Status				SEVERE	SEVERE	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	26	82	---
Chromium	ppm	ASTM D5185(m)	>20	<1	2	---
Nickel	ppm	ASTM D5185(m)	>4	0	<1	---
Titanium	ppm	ASTM D5185(m)		0	<1	---
Silver	ppm	ASTM D5185(m)	>3	0	0	---
Aluminum	ppm	ASTM D5185(m)	>20	4	23	---
Lead	ppm	ASTM D5185(m)	>40	0	0	---
Copper	ppm	ASTM D5185(m)	>330	<1	2	---
Tin	ppm	ASTM D5185(m)	>15	0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---

CONTAMINATION

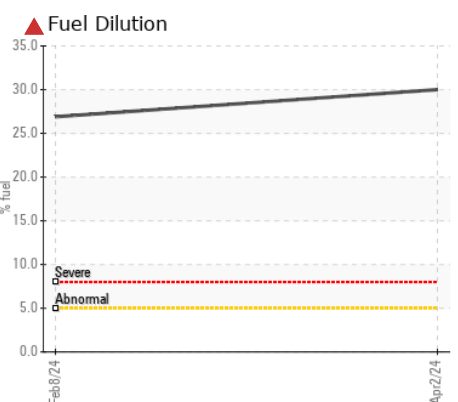
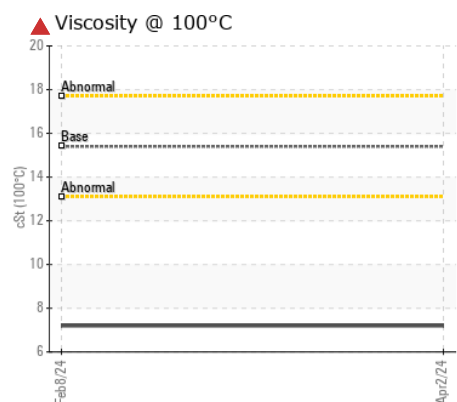
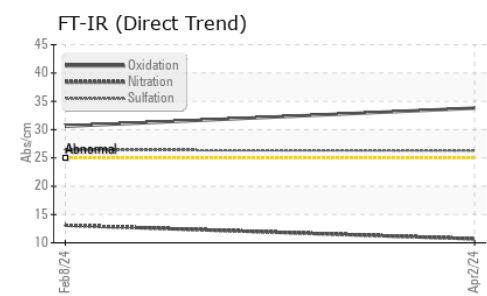
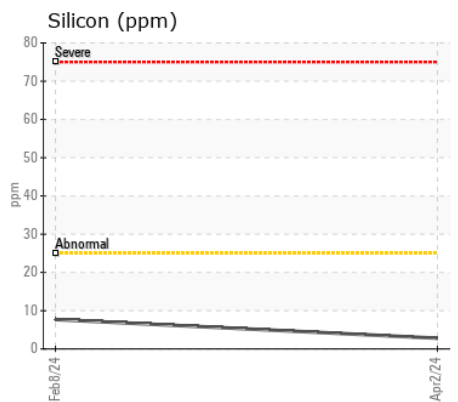
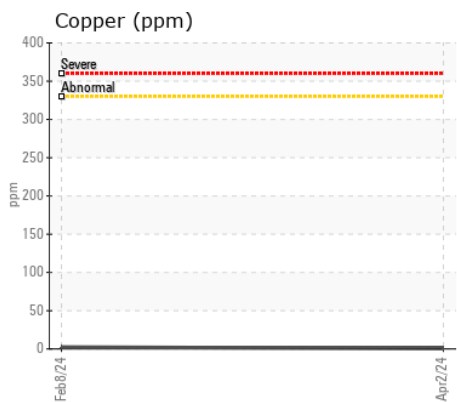
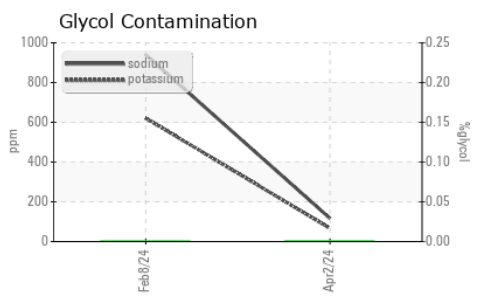
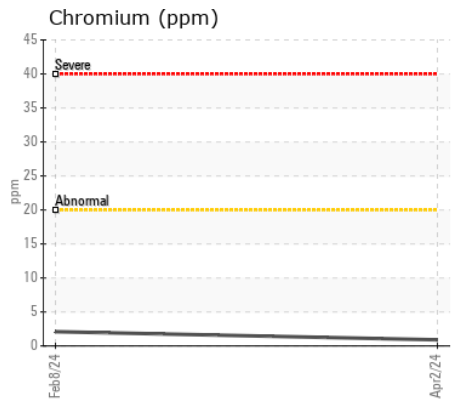
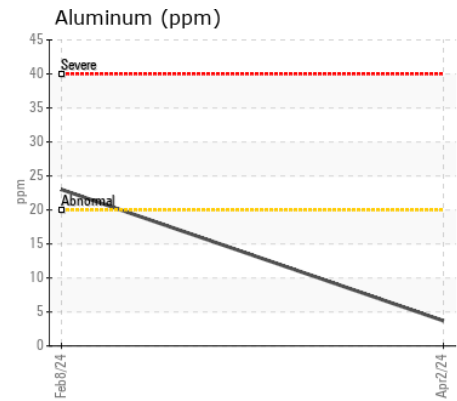
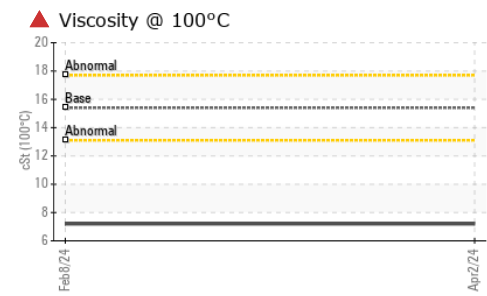
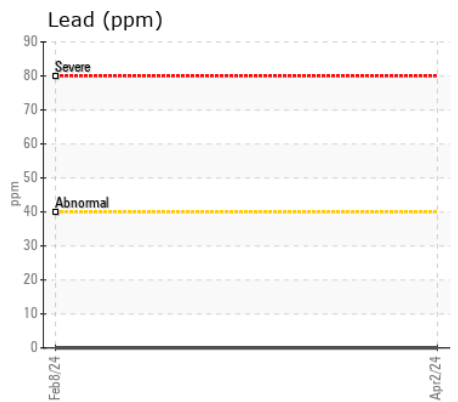
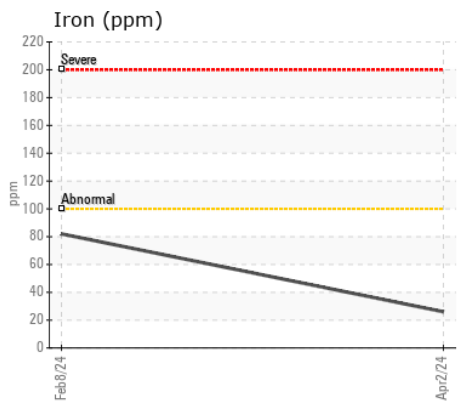
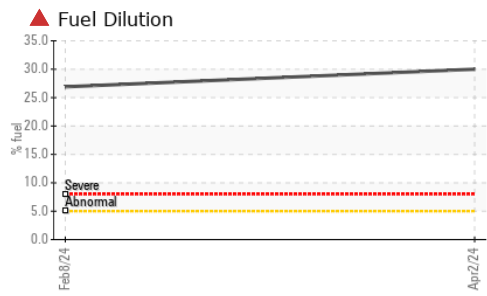
There is a high amount of fuel present in the oil. Test for glycol is negative. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	3	8	---
Potassium	ppm	ASTM D5185(m)	>20	67	▲ 621	---
Fuel	%	ASTM D7593*	>5	▲ 30	▲ 26.9	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol	%	ASTM D7922*		0.0	0.0	---
Soot %	%	ASTM D7844*	>3	0.1	0.3	---
Nitration	Abs/cm	ASTM D7624*	>20	10.7	13.1	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	26.3	26.4	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	---

FLUID CONDITION

Viscosity of sample indicates oil is within SAE 20 range, advise investigate. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		117	● 940	---
Boron	ppm	ASTM D5185(m)	0	3	2	---
Barium	ppm	ASTM D5185(m)	0	0	0	---
Molybdenum	ppm	ASTM D5185(m)	60	44	81	---
Manganese	ppm	ASTM D5185(m)	0	<1	1	---
Magnesium	ppm	ASTM D5185(m)	1010	637	695	---
Calcium	ppm	ASTM D5185(m)	1070	701	783	---
Phosphorus	ppm	ASTM D5185(m)	1150	635	643	---
Zinc	ppm	ASTM D5185(m)	1270	764	859	---
Sulfur	ppm	ASTM D5185(m)	2060	1630	1651	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	33.8	30.6	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 7.2	▲ 7.2	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0073068 **Received** : 24 Apr 2024
Lab Number : 02631119 **Tested** : 25 Apr 2024
Unique Number : 5772272 **Diagnosed** : 25 Apr 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: Glycol, PercentFuel)

GFL Environmental - 574 - Vancouver Fleet
 70 Golden Drive,
 Coquitlam, BC
 CA V3K 6B5
 Contact: Sanjay Kisun
 skisun@gflenv.com
 T: (604)529-4030
 F: (604)529-4026

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.