



Machine Id
525002
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0113202	GFL0097319	GFL0082549
Sample Date		Client Info		24 Apr 2024	14 Nov 2023	25 May 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		26985	22642	598950
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	2	1	2
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>5	0	0	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>40	0	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<1	1	<1
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---

CONTAMINATION

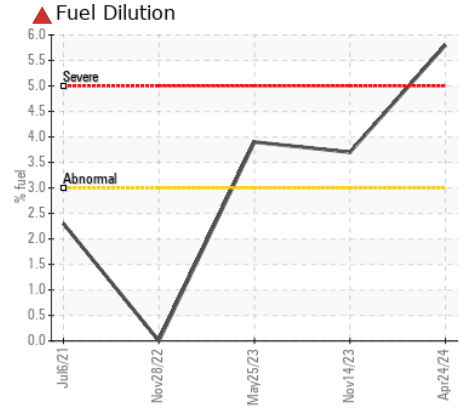
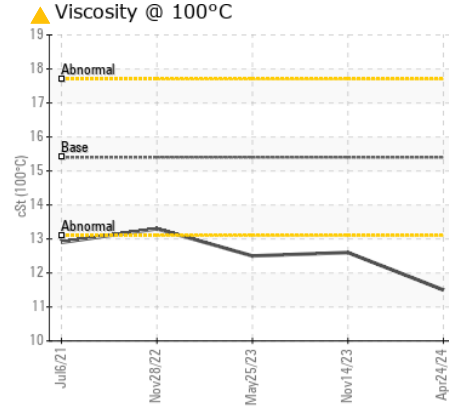
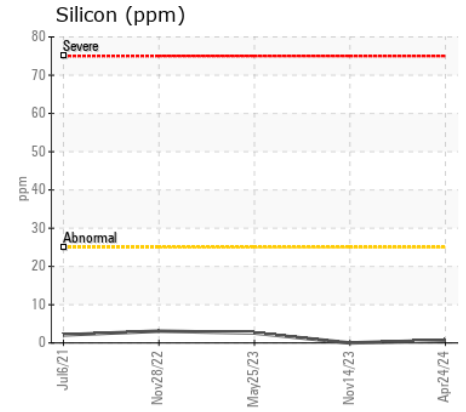
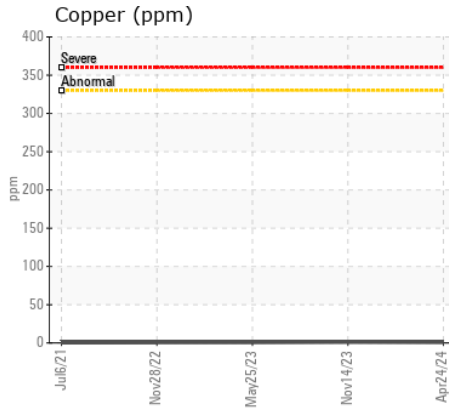
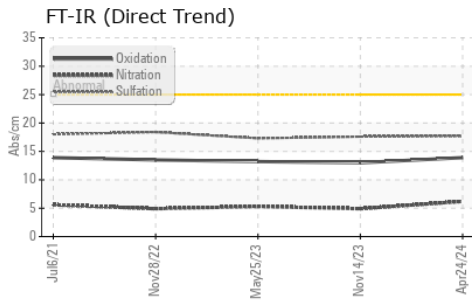
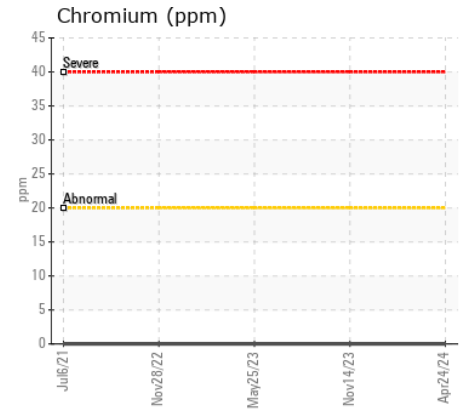
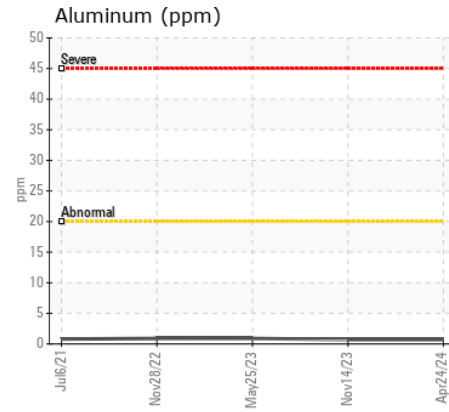
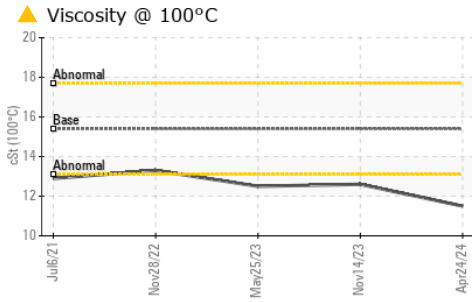
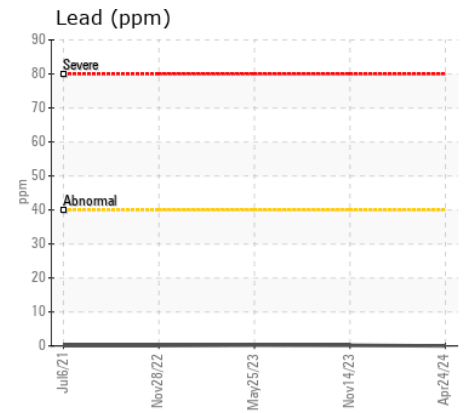
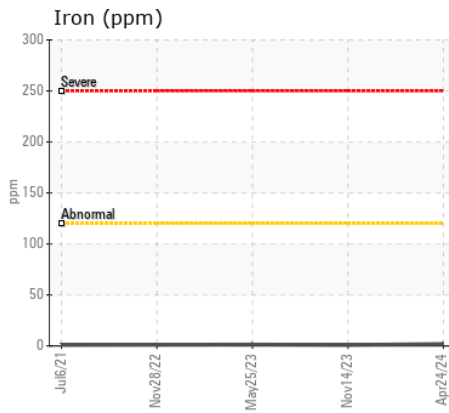
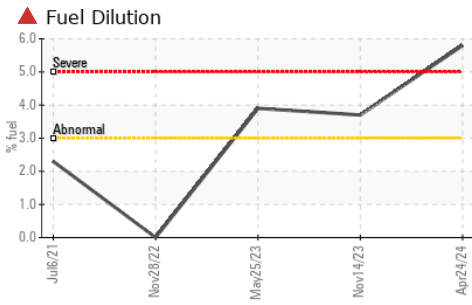
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<1	0	3
Potassium	ppm	ASTM D5185(m)	>20	<1	0	0
Fuel	%	ASTM D7593*	>3.0	▲ 5.8	▲ 3.7	▲ 3.9
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>4	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	6.2	4.9	5.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	17.7	17.6	17.3
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	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

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.

Sodium	ppm	ASTM D5185(m)		1	<1	1
Boron	ppm	ASTM D5185(m)	0	6	6	7
Barium	ppm	ASTM D5185(m)	0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	53	55	54
Manganese	ppm	ASTM D5185(m)	0	0	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	874	894	905
Calcium	ppm	ASTM D5185(m)	1070	980	980	1071
Phosphorus	ppm	ASTM D5185(m)	1150	922	943	1058
Zinc	ppm	ASTM D5185(m)	1270	1076	1100	1130
Sulfur	ppm	ASTM D5185(m)	2060	2391	2462	2590
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.9	13.0	13.2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 11.5	▲ 12.6	▲ 12.5



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0113202 **Received** : 26 Apr 2024
Lab Number : 02631541 **Tested** : 29 Apr 2024
Unique Number : 5772694 **Diagnosed** : 29 Apr 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: PercentFuel, Visual)

GFL Environmental - 246 - Windsor
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 Windsor, ON
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 T: (519)944-8009
 F:

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.