

Machine Id
701048
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0097443	GFL0085675	GFL0059882
Sample Date		Client Info		15 Jan 2024	16 Oct 2023	08 Nov 2022
Machine Age	hrs	Client Info		610	610	0
Oil Age	hrs	Client Info		610	610	108
Filter Age	hrs	Client Info		610	610	108
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	SEVERE

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>100	12	12	4
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	0
Nickel	ppm	ASTM D5185(m)	>4	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	2	2	2
Lead	ppm	ASTM D5185(m)	>40	0	0	1
Copper	ppm	ASTM D5185(m)	>330	1	3	38
Tin	ppm	ASTM D5185(m)	>15	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

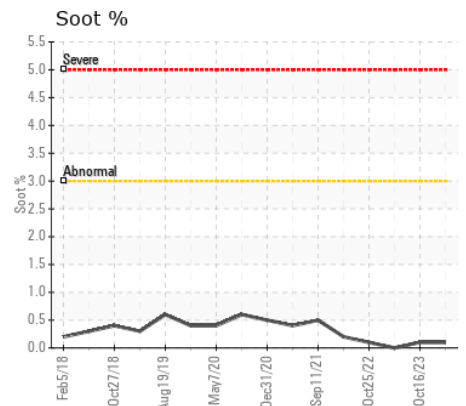
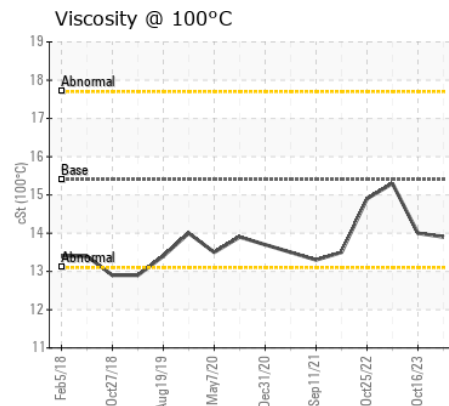
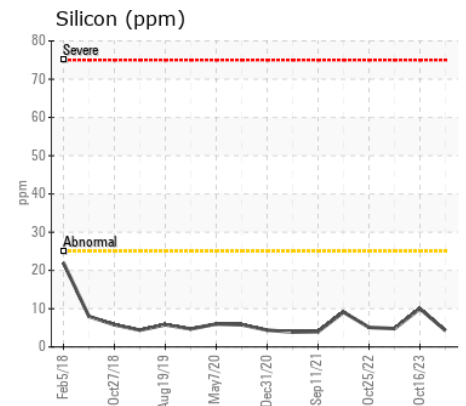
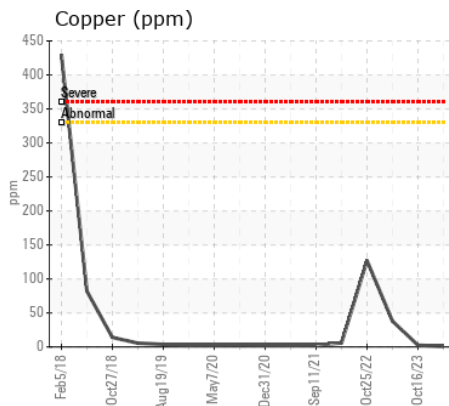
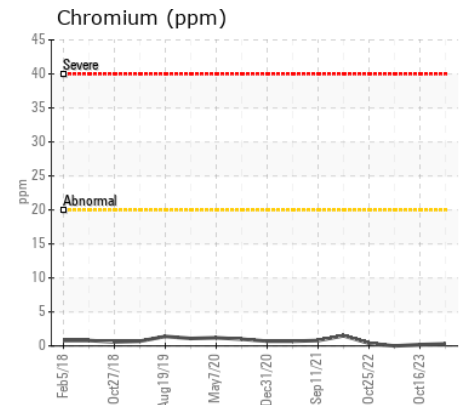
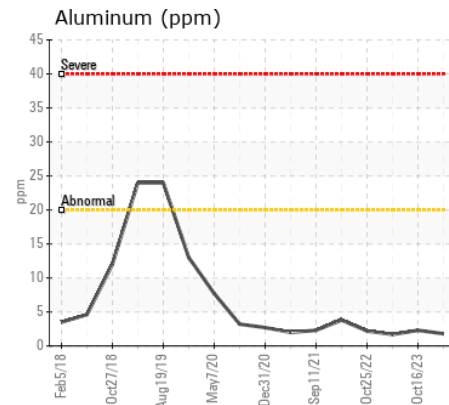
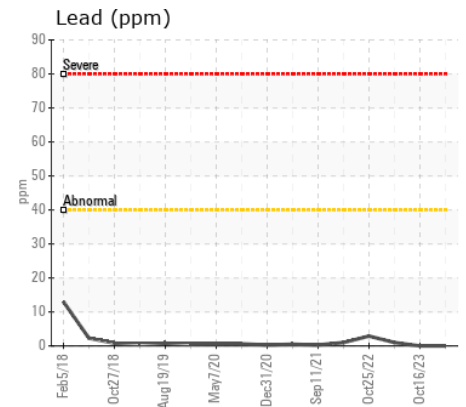
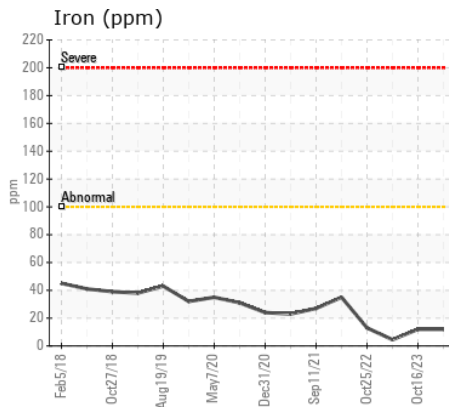
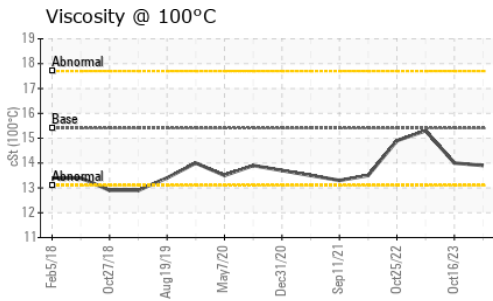
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	4	10	5
Potassium	ppm	ASTM D5185(m)	>20	3	9	▲ 256
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	0.0	◆ 0.187
Soot %	%	ASTM D7844*	>3	0.1	0.1	0
Nitration	Abs/cm	ASTM D7624*	>20	9.3	8.9	9.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.3	21.2	20.3
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		4	11	▲ 1205
Boron	ppm	ASTM D5185(m)	0	4	34	16
Barium	ppm	ASTM D5185(m)	0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	58	60	57
Manganese	ppm	ASTM D5185(m)	0	0	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	854	280	776
Calcium	ppm	ASTM D5185(m)	1070	1153	1860	914
Phosphorus	ppm	ASTM D5185(m)	1150	986	996	970
Zinc	ppm	ASTM D5185(m)	1270	1173	1178	1025
Sulfur	ppm	ASTM D5185(m)	2060	2585	2808	2481
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.5	16.8	14.7
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.9	14.0	15.3



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 221 - Windsor**
Sample No. : GFL0097443 **Received** : 17 Jan 2024 905 Tecumseh Road W
Lab Number : 02609190 **Diagnosed** : 17 Jan 2024 Windsor, ON
Unique Number : 5710276 **Diagnostician** : Wes Davis CA N8W 4J5
Test Package : MOB 1 **Contact:** Rhys Marotte
 rmarotte@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.

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F: