

Area
[1254991]
Machine Id
519006
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		GFL0110696	GFL0102706	GFL0088990
Sample Date		Client Info		05 Apr 2024	22 Dec 2023	22 Aug 2023
Machine Age	hrs	Client Info		13537	13060	12503
Oil Age	hrs	Client Info		0	0	0
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				NORMAL	MARGINAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	18	24	28
Chromium	ppm	ASTM D5185(m)	>20	<1	2	2
Nickel	ppm	ASTM D5185(m)	>4	0	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	4	8	8
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	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

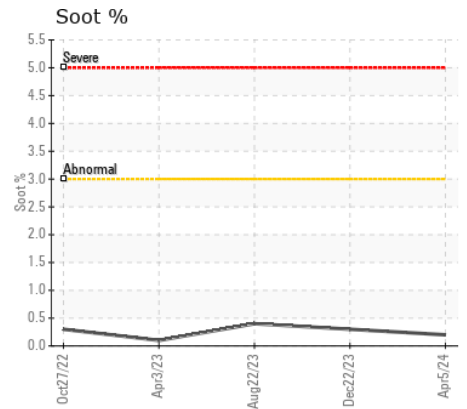
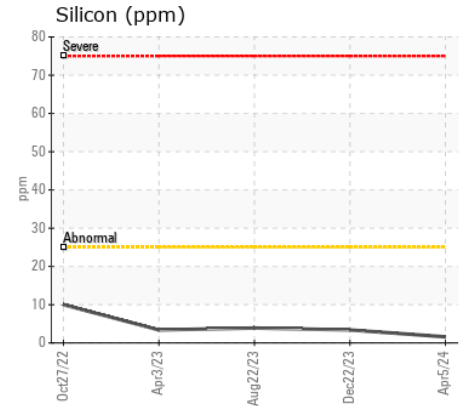
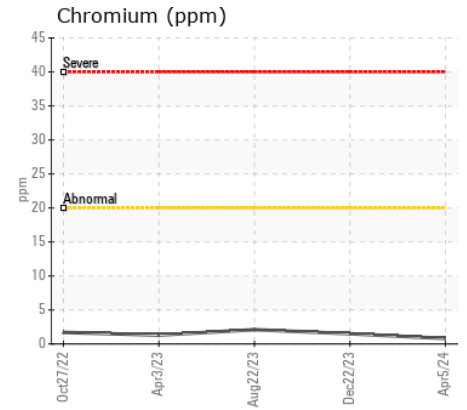
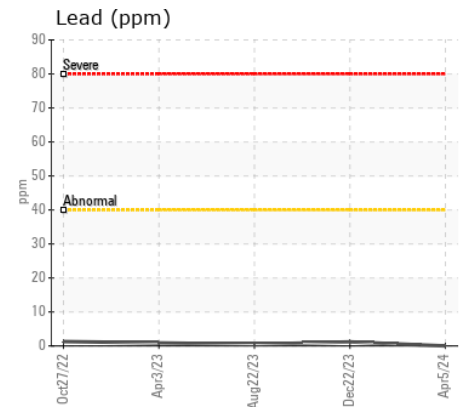
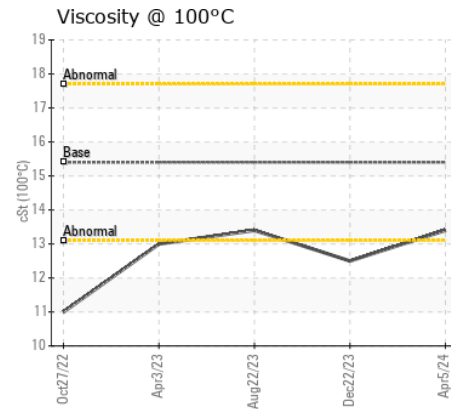
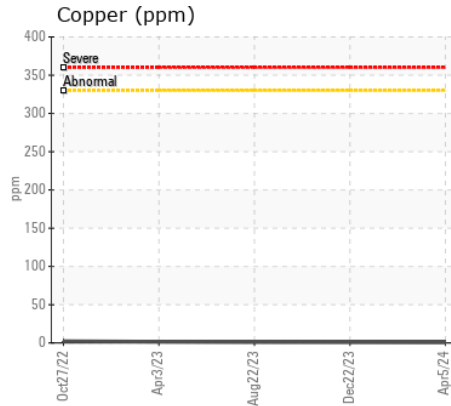
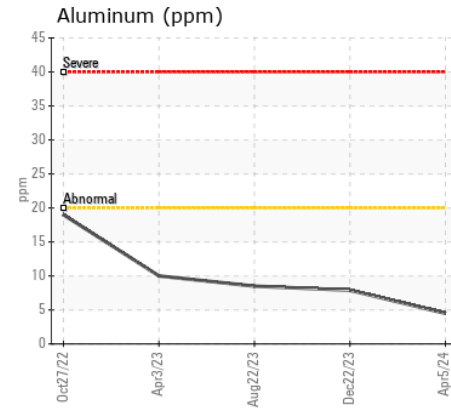
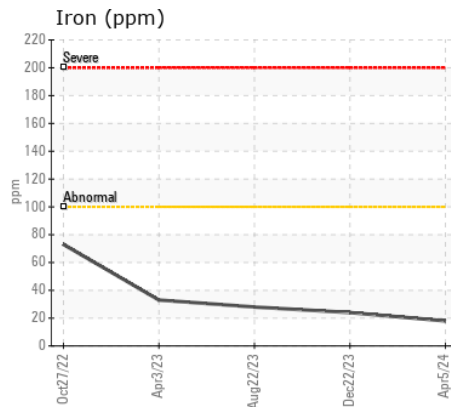
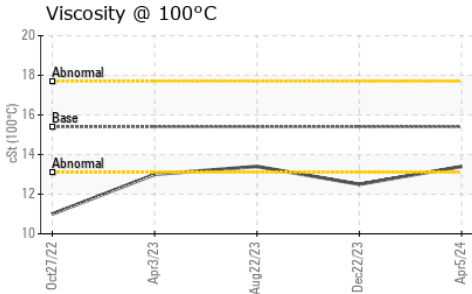
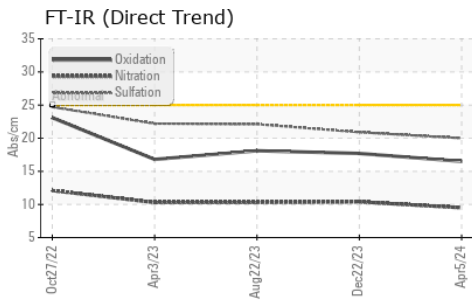
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	2	3	4
Potassium	ppm	ASTM D5185(m)	>20	1	4	2
Fuel		WC Method	>5	<1.0	▲ 3.1	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.2	0.3	0.4
Nitration	Abs/cm	ASTM D7624*	>20	9.5	10.4	10.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.0	20.9	22.1
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	VLITE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
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)		3	5	5
Boron	ppm	ASTM D5185(m)	0	3	2	4
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	60	57	60
Manganese	ppm	ASTM D5185(m)	0	<1	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	987	959	980
Calcium	ppm	ASTM D5185(m)	1070	1066	1071	1054
Phosphorus	ppm	ASTM D5185(m)	1150	1015	1018	1065
Zinc	ppm	ASTM D5185(m)	1270	1210	1189	1208
Sulfur	ppm	ASTM D5185(m)	2060	2585	2614	2556
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.5	17.7	18.1
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.4	12.5	13.4



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0110696 **Received** : 09 Apr 2024
Lab Number : 02627603 **Tested** : 09 Apr 2024
Unique Number : 5760735 **Diagnosed** : 09 Apr 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: Visual)

GFL Environmental - 207 - Pickering SW
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 PICKERING, ON
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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.