



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
GFL216
Machine Id
413136
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		GFL0107340	GFL0108427	GFL0099658
Sample Date		Client Info		22 Apr 2024	05 Jan 2024	19 Oct 2023
Machine Age	kms	Client Info		51907	39842	31182
Oil Age	kms	Client Info		0	0	0
Filter Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>120	13	11	15
Chromium	ppm	ASTM D5185(m)	>20	0	0	<1
Nickel	ppm	ASTM D5185(m)	>5	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	2	2	2
Lead	ppm	ASTM D5185(m)	>40	0	1	4
Copper	ppm	ASTM D5185(m)	>330	6	23	142
Tin	ppm	ASTM D5185(m)	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

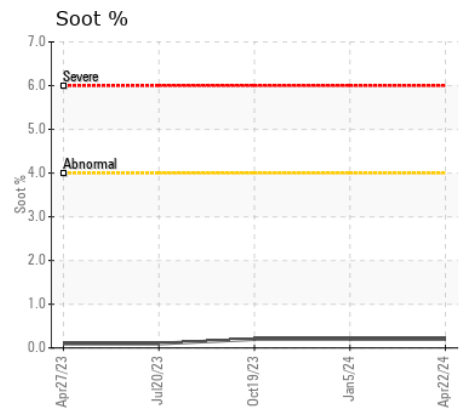
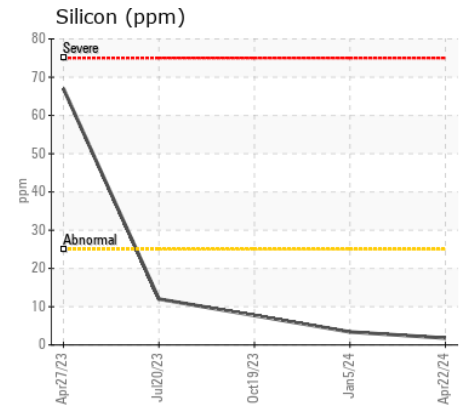
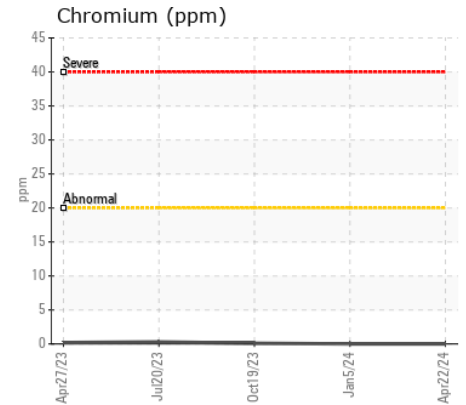
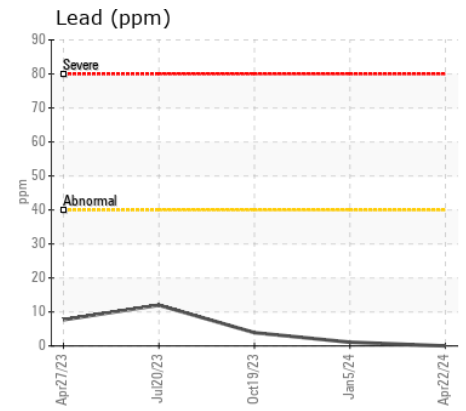
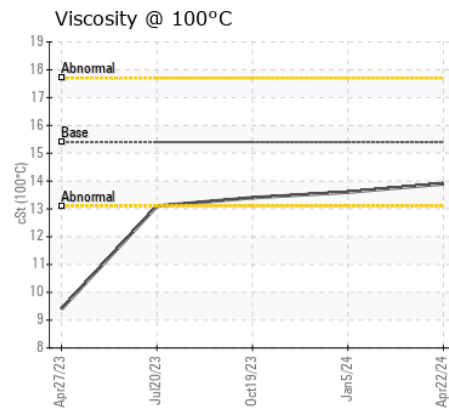
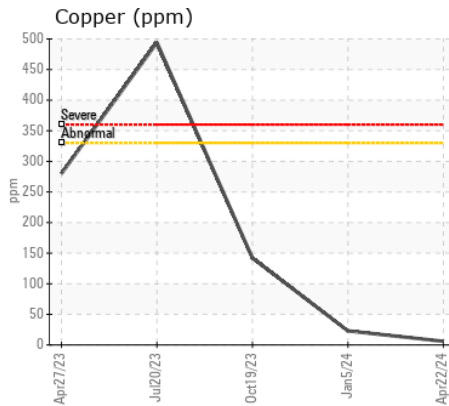
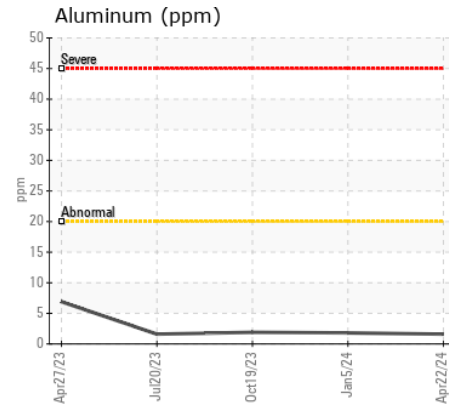
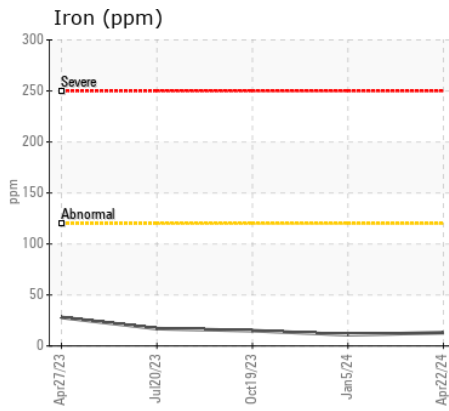
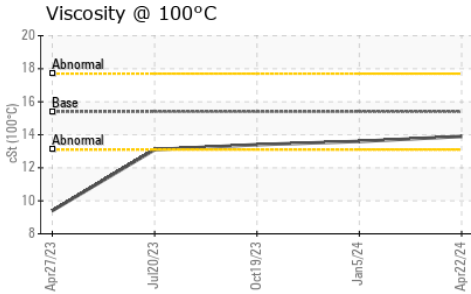
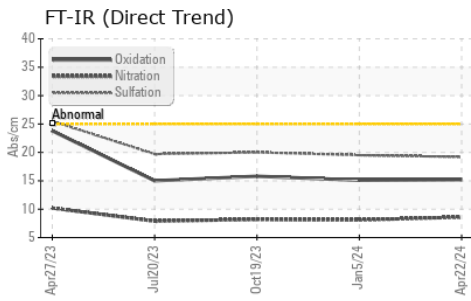
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	2	3	8
Potassium	ppm	ASTM D5185(m)	>20	3	4	3
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>4	0.2	0.2	0.2
Nitration	Abs/cm	ASTM D7624*	>20	8.6	8.1	8.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.2	19.5	20.0
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)		1	<1	1
Boron	ppm	ASTM D5185(m)	0	4	2	5
Barium	ppm	ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	61	59	62
Manganese	ppm	ASTM D5185(m)	0	<1	0	0
Magnesium	ppm	ASTM D5185(m)	1010	985	961	963
Calcium	ppm	ASTM D5185(m)	1070	1051	1051	1063
Phosphorus	ppm	ASTM D5185(m)	1150	994	993	975
Zinc	ppm	ASTM D5185(m)	1270	1186	1185	1170
Sulfur	ppm	ASTM D5185(m)	2060	2508	2583	2231
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.2	15.1	15.8
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.9	13.6	13.4



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0107340
Lab Number : 02630900
Unique Number : 5772053
Test Package : MOB 1
Received : 23 Apr 2024
Tested : 23 Apr 2024
Diagnosed : 23 Apr 2024 - Wes Davis

GFL Environmental - 252 - GTA Hauling
 3668 Weston Road
 North York, ON
 CA M9L 1W2
 Contact: Tom Hatzioannidis
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 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.