



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
4635
 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		GFL0086797	GFL0086770	GFL0063928
Sample Date		Client Info		04 Jan 2024	01 Sep 2023	29 May 2023
Machine Age	hrs	Client Info		14179	11510	11510
Oil Age	hrs	Client Info		600	11510	11510
Filter Age	hrs	Client Info		600	11510	11510
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	19	27	21
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	6	10	4
Lead	ppm	ASTM D5185(m)	>40	6	3	3
Copper	ppm	ASTM D5185(m)	>330	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

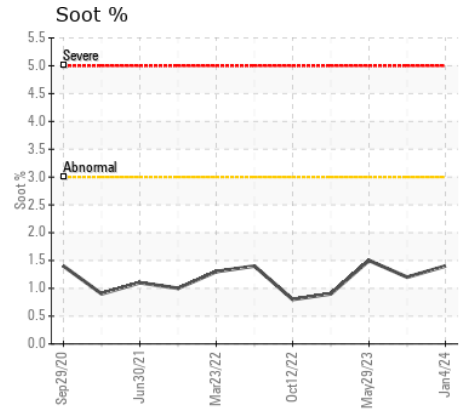
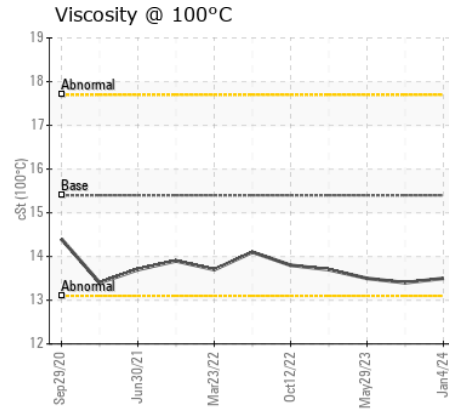
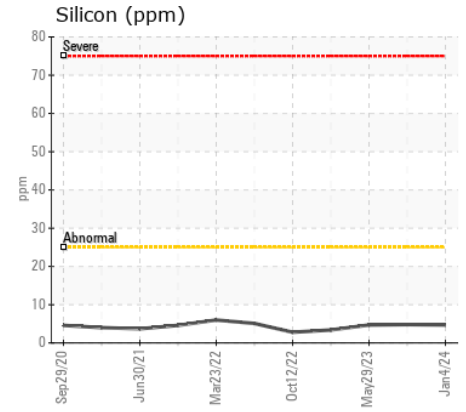
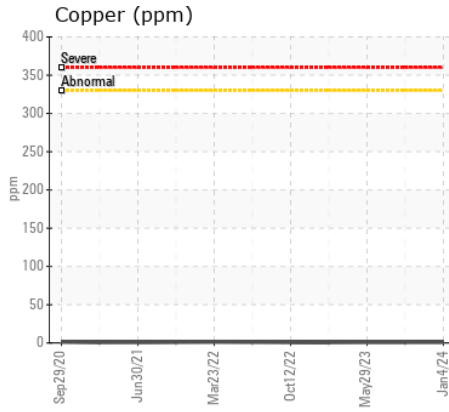
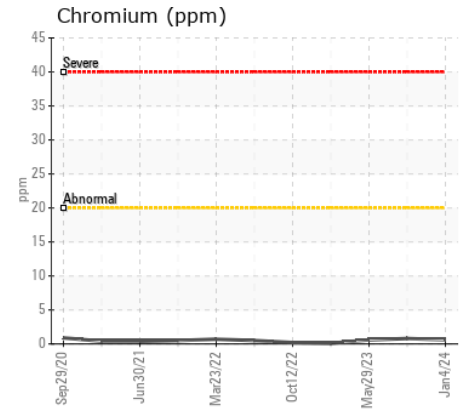
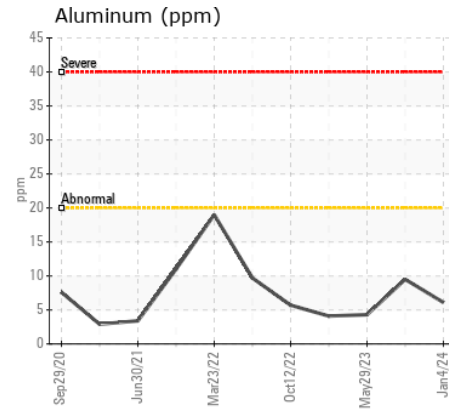
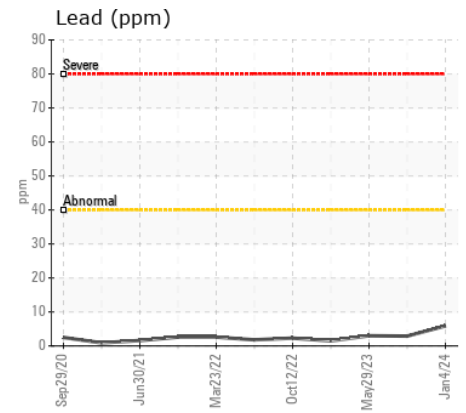
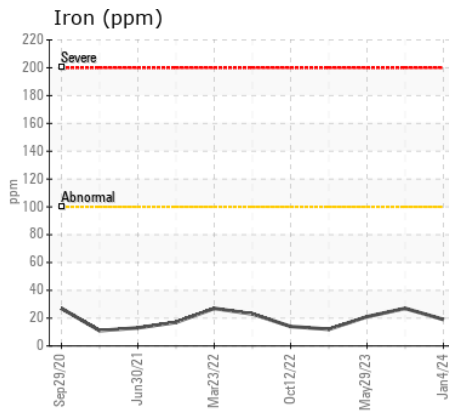
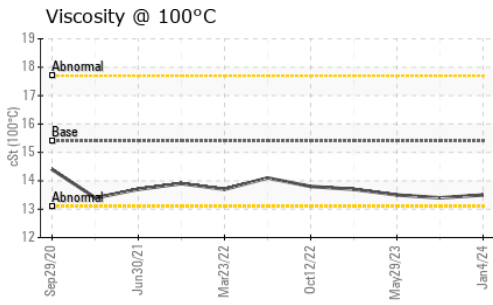
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	5	5	5
Potassium	ppm	ASTM D5185(m)	>20	2	3	1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	1.4	1.2	1.5
Nitration	Abs/cm	ASTM D7624*	>20	15.4	13.3	15.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	25.1	24.3	26.7
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)		5	4	8
Boron	ppm	ASTM D5185(m)	0	5	5	2
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	63	62	63
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	968	992	995
Calcium	ppm	ASTM D5185(m)	1070	1138	1112	1163
Phosphorus	ppm	ASTM D5185(m)	1150	1014	1079	1093
Zinc	ppm	ASTM D5185(m)	1270	1208	1220	1242
Sulfur	ppm	ASTM D5185(m)	2060	2672	2497	2549
Oxidation	Abs/.1mm	ASTM D7414*	>25	25.8	21.9	26.9
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.5	13.4	13.5



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0086797
Lab Number : 02606686
Unique Number : 5707772
Test Package : MOB 1
Received : 05 Jan 2024
Diagnosed : 05 Jan 2024
Diagnostician : Kevin Marson

GFL Environmental - 222 - Sandhill
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 ORANGEVILLE, ON
 CA L9W 3X5
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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.