



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
426014
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0113257	GFL0102879	GFL0082551
Sample Date		Client Info		29 Feb 2024	23 Nov 2023	18 May 2023
Machine Age	kms	Client Info		0	0	320734
Oil Age	kms	Client Info		16826	9456	0
Filter Age	kms	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	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	5	7	5
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>5	<1	0	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	<1
Silver	ppm	ASTM D5185(m)	>2	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	2	2	2
Lead	ppm	ASTM D5185(m)	>40	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>15	<1	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

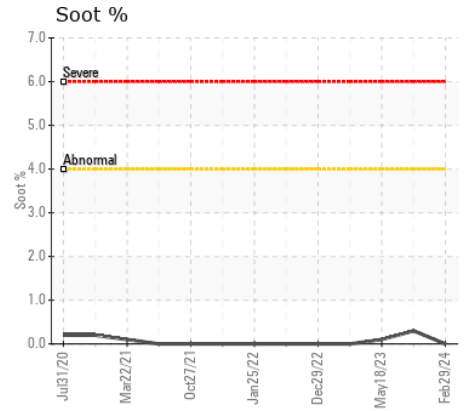
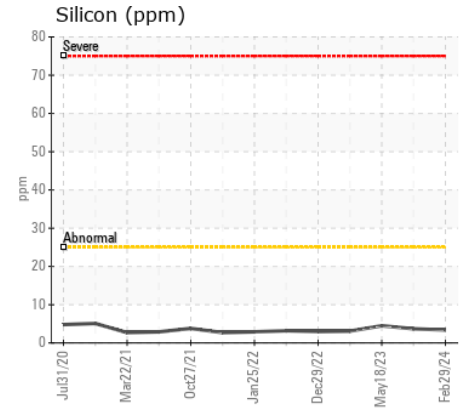
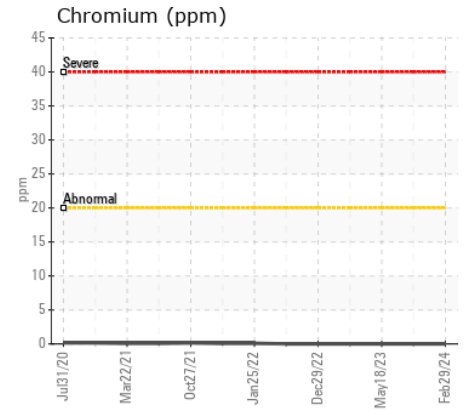
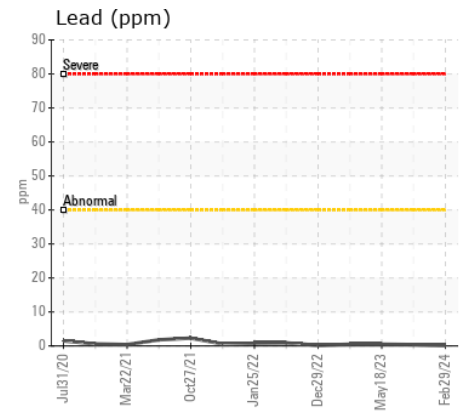
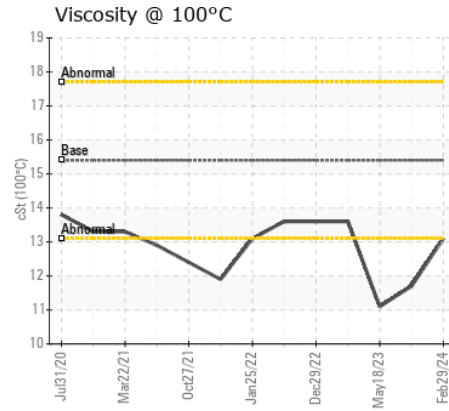
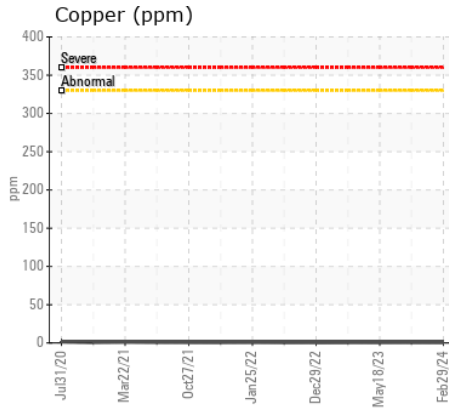
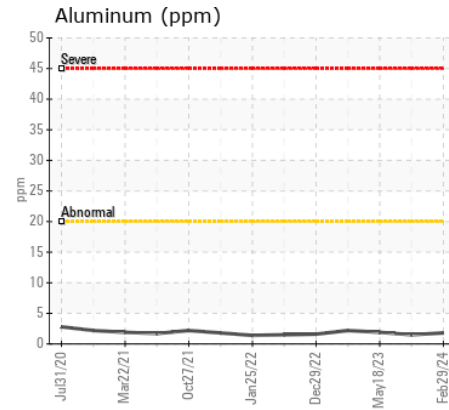
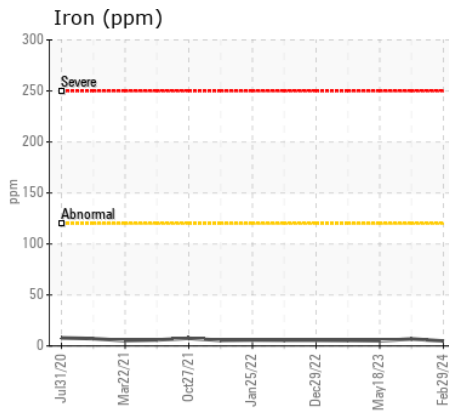
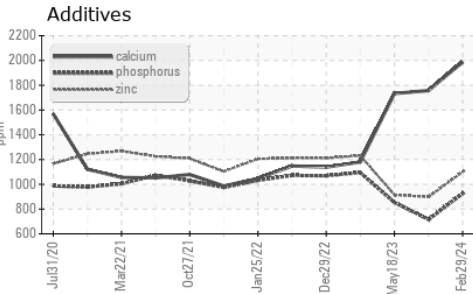
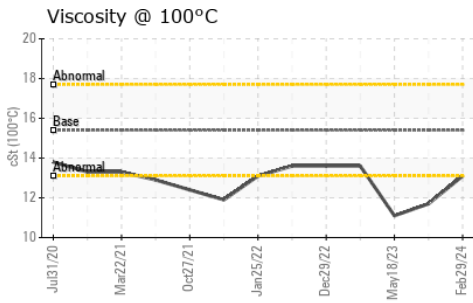
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	3	4	4
Potassium	ppm	ASTM D5185(m)	>20	4	0	0
Fuel		WC Method	>3.0	<1.0	0.8	2.4
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>4	0	0.3	0.1
Nitration	Abs/cm	ASTM D7624*	>20	10.0	8.6	9.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	24.7	23.4	22.1
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		4	2	2
Boron	ppm	ASTM D5185(m)	0	60	27	33
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	14	39	43
Manganese	ppm	ASTM D5185(m)	0	0	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	171	470	537
Calcium	ppm	ASTM D5185(m)	1070	1987	1757	1733
Phosphorus	ppm	ASTM D5185(m)	1150	926	716	854
Zinc	ppm	ASTM D5185(m)	1270	1100	898	914
Sulfur	ppm	ASTM D5185(m)	2060	2933	1952	2364
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.4	21.7	20.9
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.1	▲ 11.7	▲ 11.1



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0113257
Lab Number : 02619834
Unique Number : 5736944
Test Package : MOB 1
Received : 05 Mar 2024
Tested : 05 Mar 2024
Diagnosed : 05 Mar 2024 - Wes Davis

GFL Environmental - 246 - Windsor
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 CA N8W 5H8
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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.