



Machine Id
426013
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. 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		GFL0113216	GFL0102901	GFL0097327
Sample Date		Client Info		30 Apr 2024	18 Mar 2024	19 Dec 2023
Machine Age	hrs	Client Info		17089	0	0
Oil Age	hrs	Client Info		0	18310	17903
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	SEVERE	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	3	4	5
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>5	0	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	1	3	3
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	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	VLITE
Yellow Metal	scalar	Visual*	NONE	NONE	---	NONE

CONTAMINATION

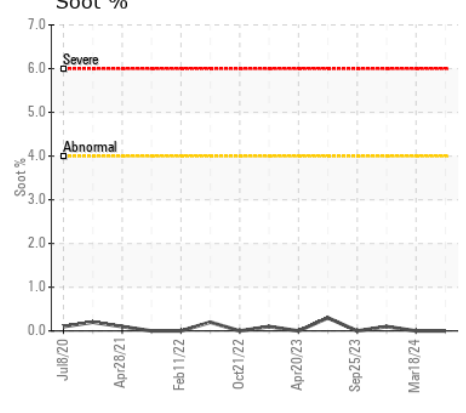
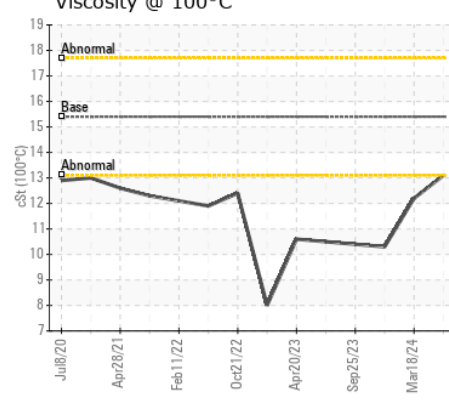
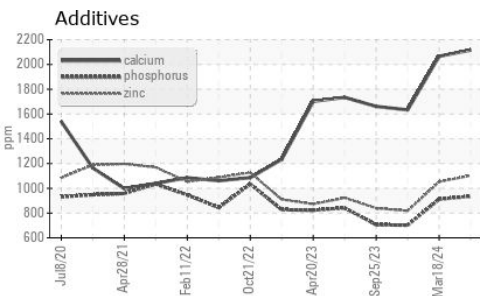
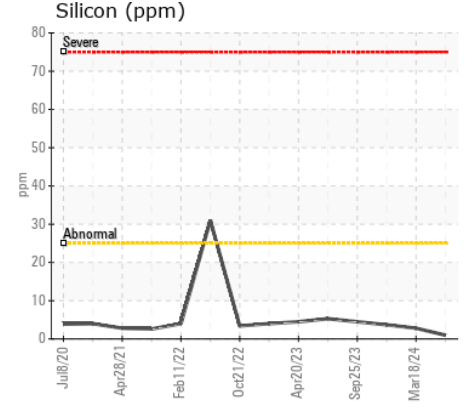
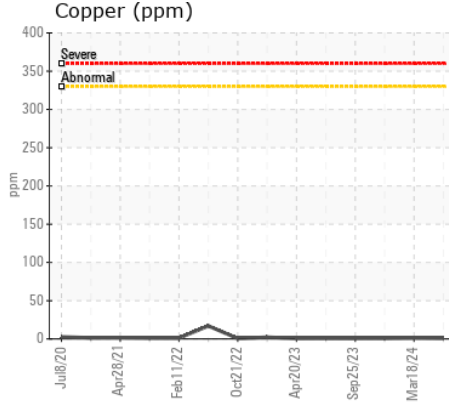
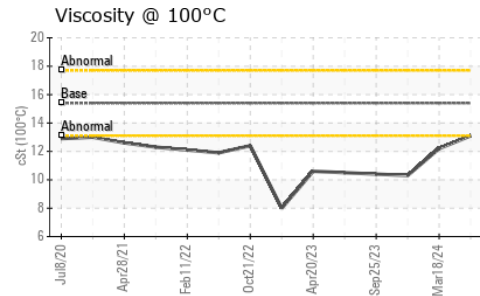
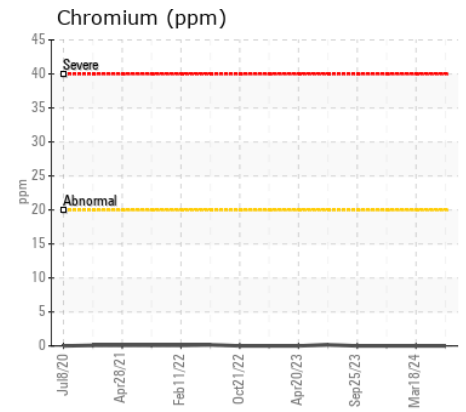
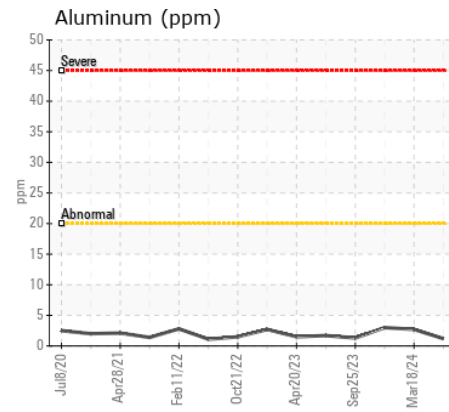
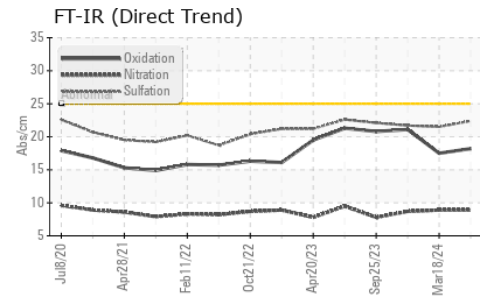
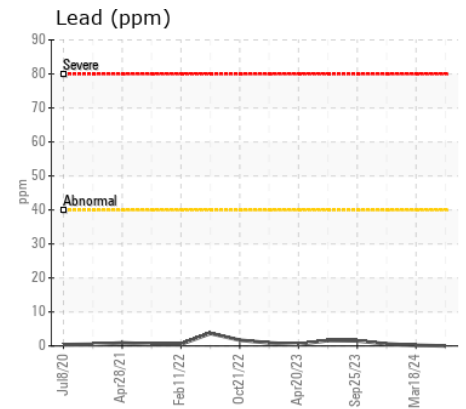
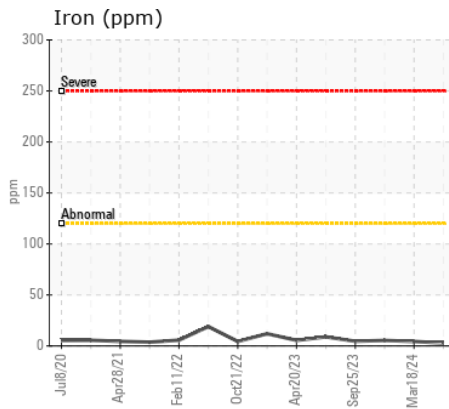
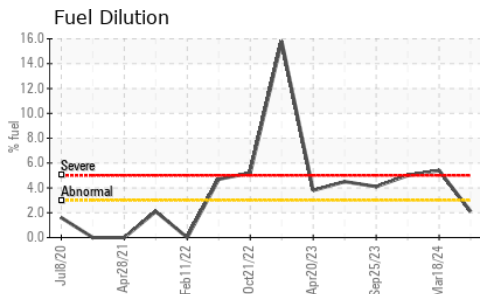
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>25	1	3	4
Potassium	ppm	ASTM D5185(m)	>20	5	5	<1
Fuel	%	ASTM D7593*	>3.0	2.1	▲ 5.4	▲ 5
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>4	0	0	0.1
Nitration	Abs/cm	ASTM D7624*	>20	8.9	8.9	8.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.4	21.5	21.7
Silt	scalar	Visual*	NONE	NONE	---	NONE
Debris	scalar	Visual*	NONE	NONE	---	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	---	NONE
Appearance	scalar	Visual*	NORML	NORML	---	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
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)		3	3	2
Boron	ppm	ASTM D5185(m)	0	116	113	22
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	2	4	39
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	1010	35	54	481
Calcium	ppm	ASTM D5185(m)	1070	2116	2066	1633
Phosphorus	ppm	ASTM D5185(m)	1150	936	911	702
Zinc	ppm	ASTM D5185(m)	1270	1103	1052	818
Sulfur	ppm	ASTM D5185(m)	2060	2806	2881	2033
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.2	17.5	21.1
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.1	▲ 12.2	▲ 10.3



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0113216 **Received** : 01 May 2024
Lab Number : 02632511 **Tested** : 02 May 2024
Unique Number : 5773664 **Diagnosed** : 02 May 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: PercentFuel, Visual)

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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.