

Machine Id
151002
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0089797	GFL0027441	GFL0027438
Sample Date		Client Info		10 Apr 2024	26 Sep 2023	01 May 2023
Machine Age	kms	Client Info		61425	44211	27512
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				ABNORMAL	ATTENTION	ABNORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>100	11	7	17
Chromium	ppm	ASTM D5185(m)	>20	<1	0	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	0	<1
Titanium	ppm	ASTM D5185(m)		<1	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	4	2	6
Lead	ppm	ASTM D5185(m)	>40	0	<1	0
Copper	ppm	ASTM D5185(m)	>330	1	1	4
Tin	ppm	ASTM D5185(m)	>15	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

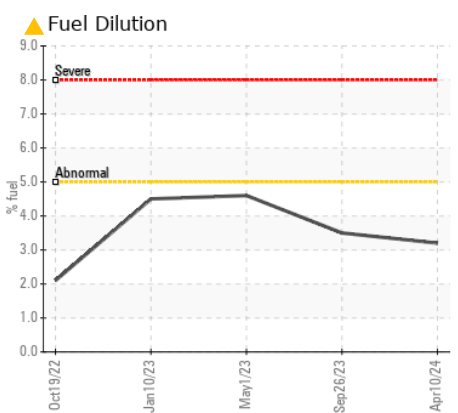
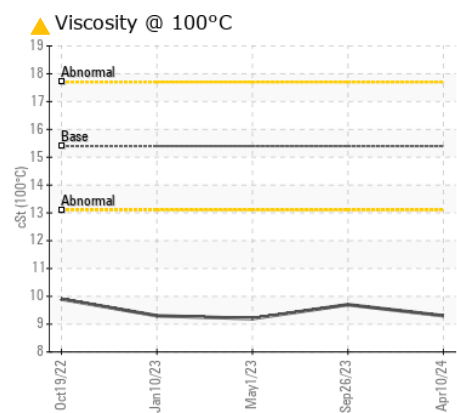
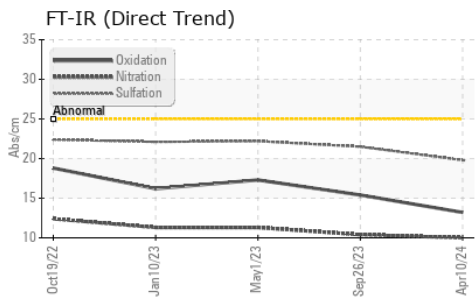
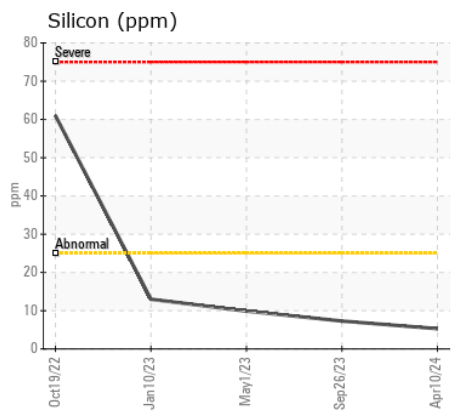
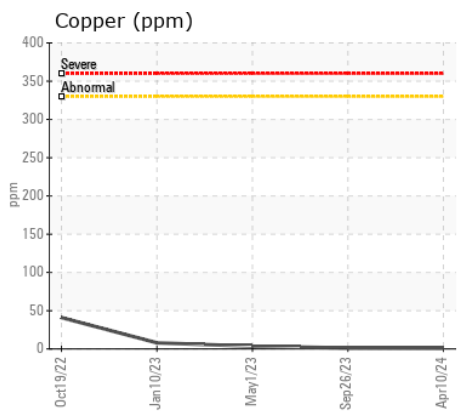
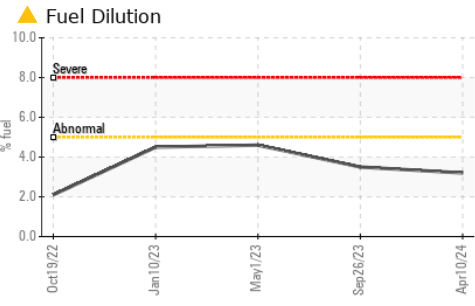
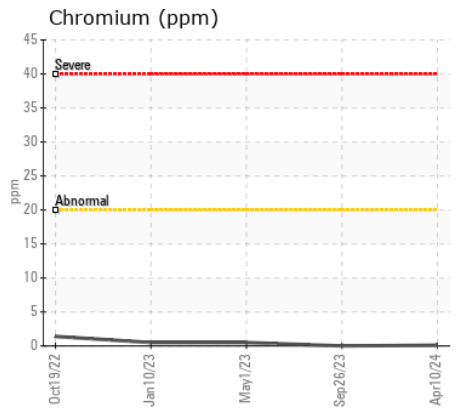
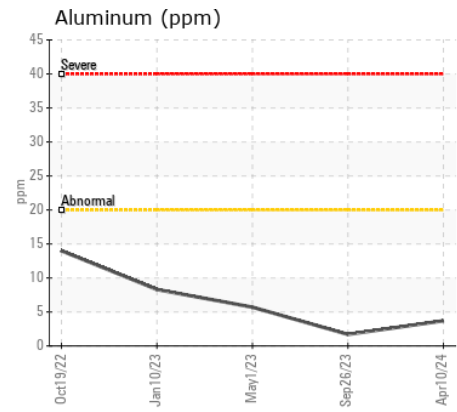
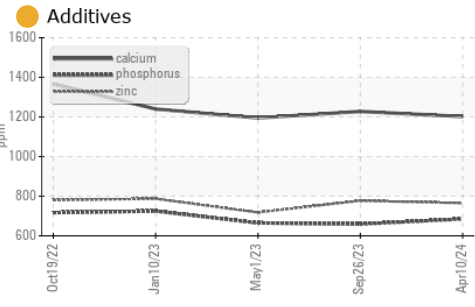
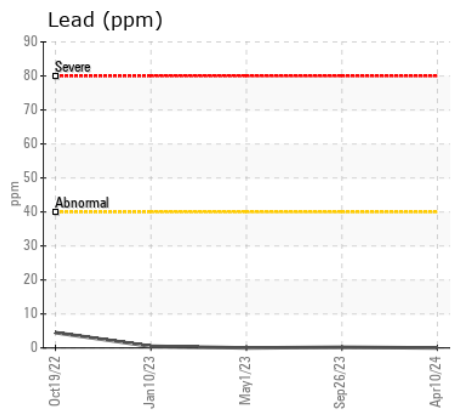
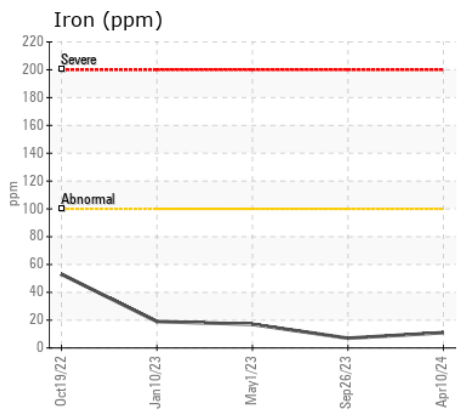
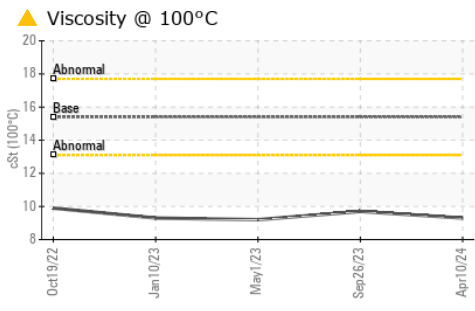
Light fuel dilution occurring.

Silicon	ppm	ASTM D5185(m)	>25	5	7	10
Potassium	ppm	ASTM D5185(m)	>20	<1	1	<1
Fuel	%	ASTM D7593*	>5	▲ 3.2	▲ 3.5	▲ 4.6
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	10.0	10.4	11.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.8	21.5	22.2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		2	3	3
Boron	ppm	ASTM D5185(m)	0	● 88	● 41	● 67
Barium	ppm	ASTM D5185(m)	0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	73	71	69
Manganese	ppm	ASTM D5185(m)	0	0	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	● 548	● 540	● 483
Calcium	ppm	ASTM D5185(m)	1070	1202	● 1228	1195
Phosphorus	ppm	ASTM D5185(m)	1150	● 685	659	● 665
Zinc	ppm	ASTM D5185(m)	1270	● 765	777	● 718
Sulfur	ppm	ASTM D5185(m)	2060	2262	2397	2280
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.2	15.4	17.3
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 9.3	9.7	▲ 9.2



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0089797
Lab Number : 02629105
Unique Number : 5762237
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)
Received : 16 Apr 2024
Tested : 17 Apr 2024
Diagnosed : 17 Apr 2024 - Wes Davis

GFL Environmental - DO NOT USE GFL582
 9401 Trans Canada Hwy
 Chemainus, BC
 CA V0R 1K4
 Contact: service

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.

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