



Machine Id
8984
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (20 LTR)

RECOMMENDATION

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0113181	GFL0090553	GFL0076498
Sample Date		Client Info		26 Feb 2024	21 Sep 2023	24 May 2023
Machine Age	kms	Client Info		188183	182688	178057
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				SEVERE	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	23	69	28
Chromium	ppm	ASTM D5185(m)	>20	<1	2	1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<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	6	2
Lead	ppm	ASTM D5185(m)	>40	<1	<1	0
Copper	ppm	ASTM D5185(m)	>330	<1	2	<1
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

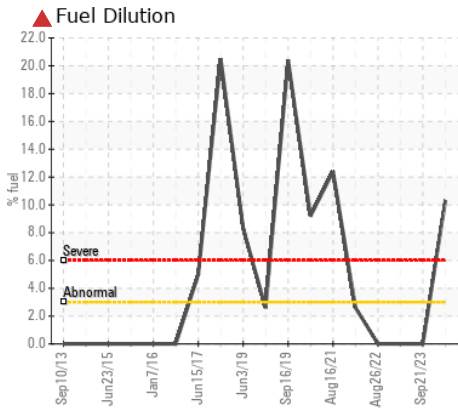
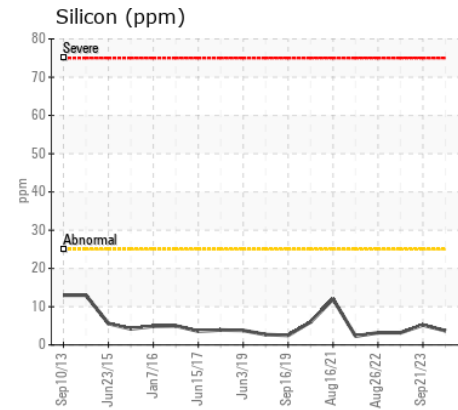
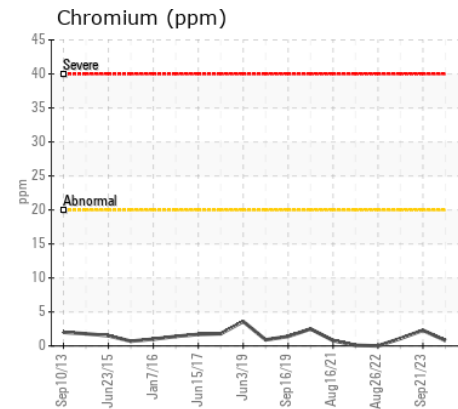
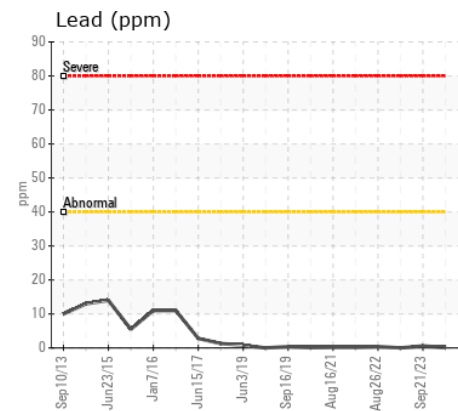
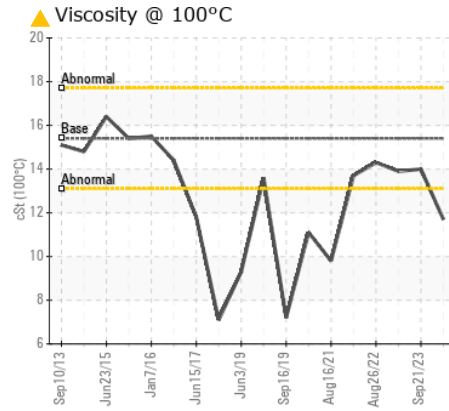
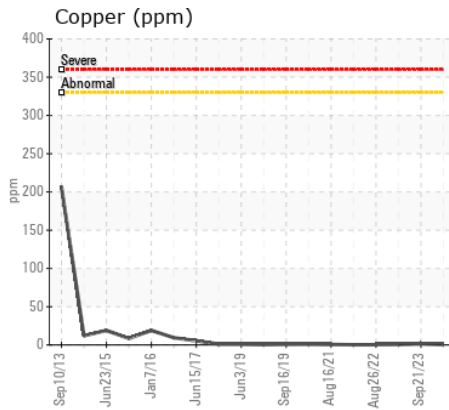
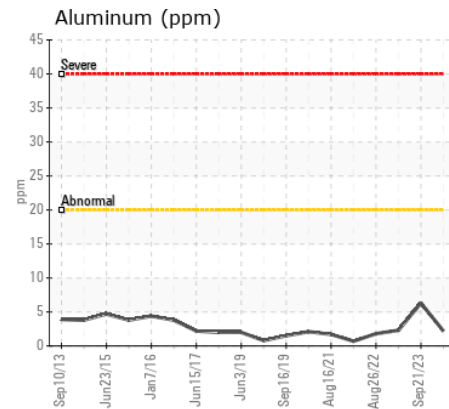
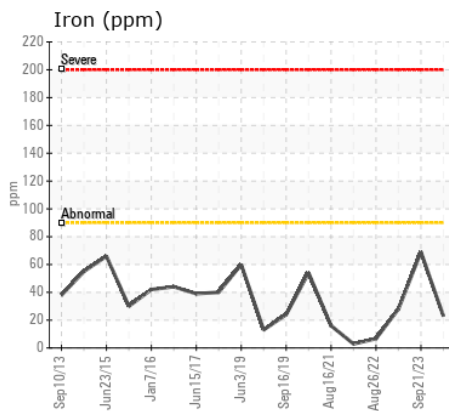
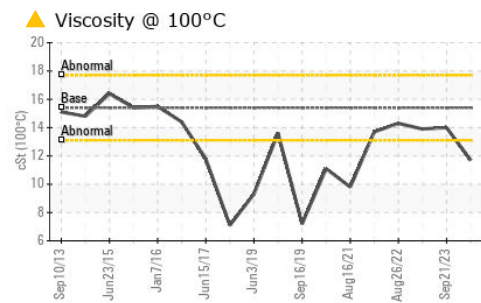
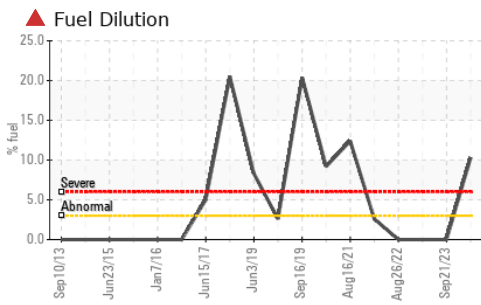
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	4	5	3
Potassium	ppm	ASTM D5185(m)	>20	<1	2	<1
Fuel	%	ASTM D7593*	>3.0	▲ 10.3	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>6	1.3	3.3	1.4
Nitration	Abs/cm	ASTM D7624*	>20	9.7	13.9	9.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.4	29.4	22.3
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)		6	22	10
Boron	ppm	ASTM D5185(m)	0	4	2	3
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	52	60	61
Manganese	ppm	ASTM D5185(m)	0	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	819	971	966
Calcium	ppm	ASTM D5185(m)	1070	933	1050	1099
Phosphorus	ppm	ASTM D5185(m)	1150	860	963	1085
Zinc	ppm	ASTM D5185(m)	1270	1028	1196	1192
Sulfur	ppm	ASTM D5185(m)	2060	2266	2141	2493
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.0	24.3	17.6
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ 11.7	14.0	13.9



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0113181
Lab Number : 02618581
Unique Number : 5735691
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

Received : 28 Feb 2024
Tested : 29 Feb 2024
Diagnosed : 29 Feb 2024 - Wes Davis

GFL Environmental - 225 - COT(D2)
 20 Brydon Drive
 Etobicoke, ON
 CA M9W 5R6
 Contact: Rick Philip
 rphilip@gflenv.com
 T: (416)745-8080
 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.