



WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL



Area
GFL207
Machine Id
800016
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		GFL0102740	GFL0094548	GFL0089017
Sample Date		Client Info		27 Feb 2024	12 Dec 2023	21 Sep 2023
Machine Age	hrs	Client Info		18628	18063	17481
Oil Age	hrs	Client Info		0	18063	0
Filter Age	hrs	Client Info		0	18063	0
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				SEVERE	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>75	35	40	41
Chromium	ppm	ASTM D5185(m)	>5	1	1	1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>15	2	2	2
Lead	ppm	ASTM D5185(m)	>25	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>100	<1	<1	1
Tin	ppm	ASTM D5185(m)	>4	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

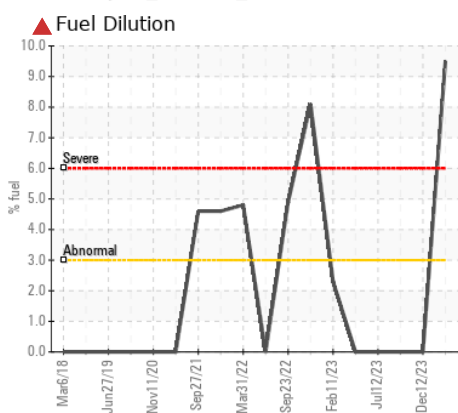
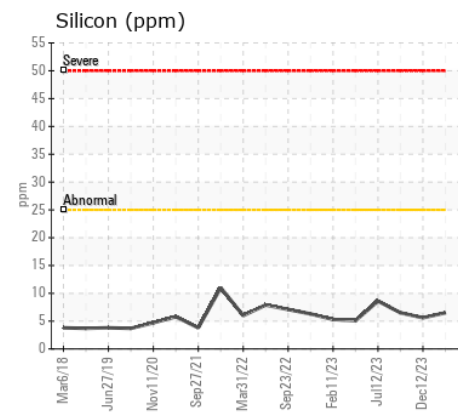
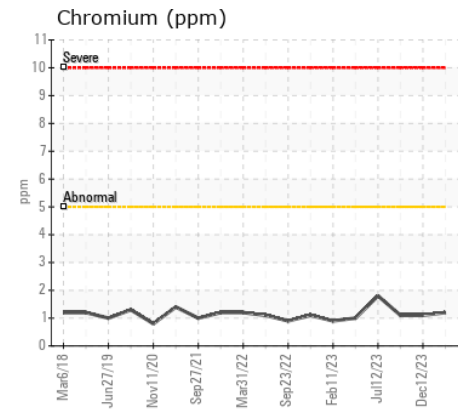
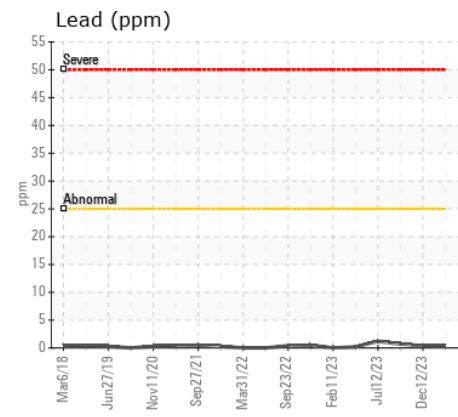
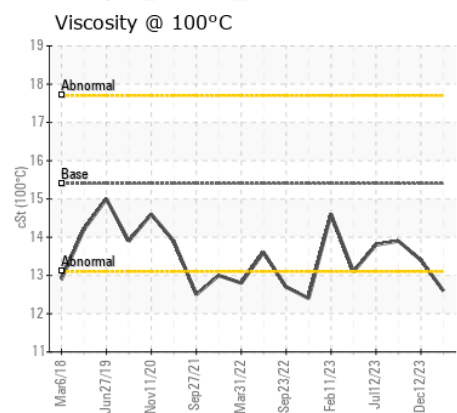
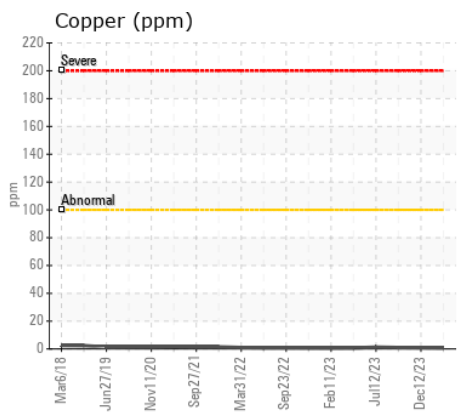
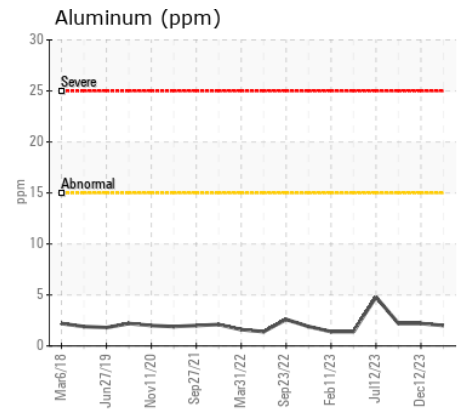
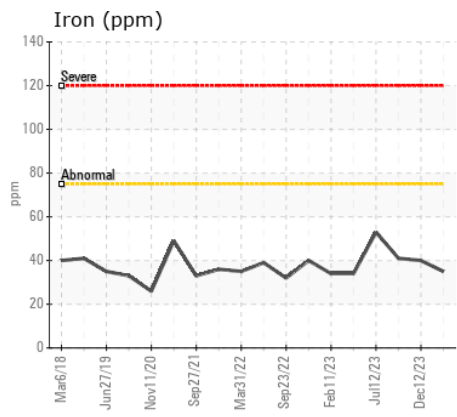
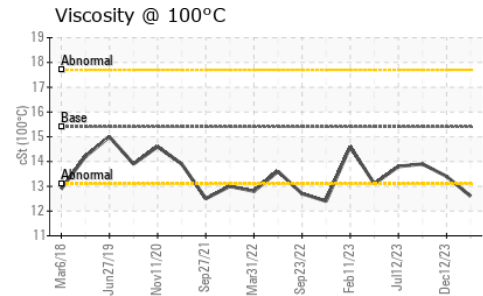
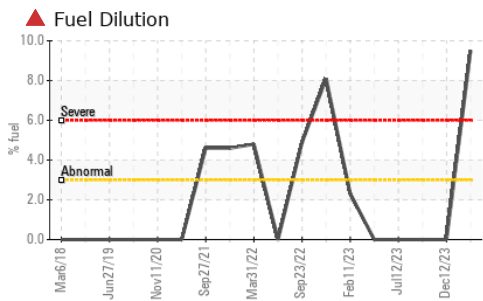
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	6	6	6
Potassium	ppm	ASTM D5185(m)	>20	2	<1	4
Fuel	%	ASTM D7593*	>3.0	▲ 9.5	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>6	0.7	0.7	0.7
Nitration	Abs/cm	ASTM D7624*	>20	13.3	12.9	12.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	25.6	26.7	27.5
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)		8	12	12
Boron	ppm	ASTM D5185(m)	0	2	2	3
Barium	ppm	ASTM D5185(m)	0	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	53	56	59
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	1010	856	917	940
Calcium	ppm	ASTM D5185(m)	1070	946	1011	1030
Phosphorus	ppm	ASTM D5185(m)	1150	894	924	945
Zinc	ppm	ASTM D5185(m)	1270	1047	1136	1154
Sulfur	ppm	ASTM D5185(m)	2060	2194	2190	2265
Oxidation	Abs/.1mm	ASTM D7414*	>25	28.4	29.6	30.2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	12.6	13.4	13.9



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0102740
Lab Number : 02618843
Unique Number : 5735953
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 227 - Pickering MTCE
 1034 Toy Ave
 Pickering, ON
 CA L1W 3P1
 Contact: Maintenance

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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 F: