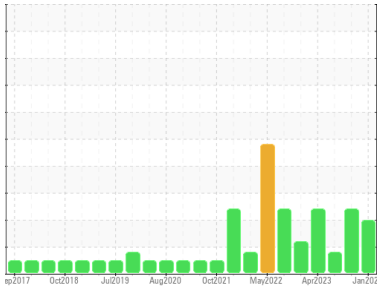
OIL ANALYSIS REPORT

Sample Rating Trend



FUEL

Area
GFL207
Machine Id
800029
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (20 GAL)

DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0110712**	GFL0089025	GFL0082953
Sample Date		Client Info		**16 Jan 2024**	22 Sep 2023	02 Jul 2023
Machine Age	hrs	Client Info		**15640**	15133	14651
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	Changed	Changed
Sample Status				**SEVERE**	SEVERE	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	0.0	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>75	**28**	31	39
Chromium	ppm	ASTM D5185(m)	>5	**<1**	<1	1
Nickel	ppm	ASTM D5185(m)	>4	**<1**	<1	0
Titanium	ppm	ASTM D5185(m)	>2	**0**	0	0
Silver	ppm	ASTM D5185(m)	>2	**0**	<1	0
Aluminum	ppm	ASTM D5185(m)	>15	**3**	3	3
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
Antimony	ppm	ASTM D5185(m)		**0**	0	0
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	**1**	2	4
Barium	ppm	ASTM D5185(m)	0	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	60	**52**	55	55
Manganese	ppm	ASTM D5185(m)	0	**0**	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	**825**	860	868
Calcium	ppm	ASTM D5185(m)	1070	**945**	946	927
Phosphorus	ppm	ASTM D5185(m)	1150	**849**	857	950
Zinc	ppm	ASTM D5185(m)	1270	**1017**	1056	1068
Sulfur	ppm	ASTM D5185(m)	2060	**2287**	2173	2168
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**7**	8	13
Sodium	ppm	ASTM D5185(m)		**14**	12	12
Potassium	ppm	ASTM D5185(m)	>20	**4**	6	4
Fuel	%	ASTM D7593*	>3.0	**7.5**	7.9	▲ 7.1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>6	**0.6**	0.7	0.8
Nitration	Abs/cm	ASTM D7624*	>20	**13.8**	13.1	14.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	**26.6**	27.6	28.6

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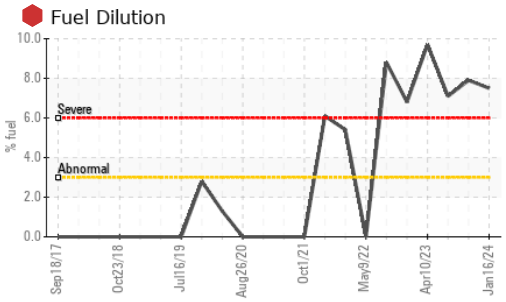
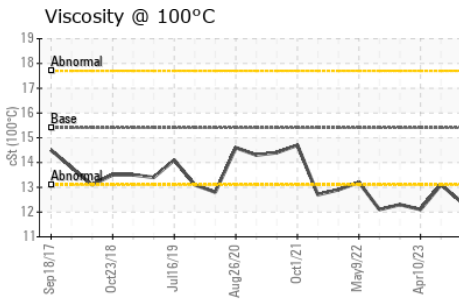


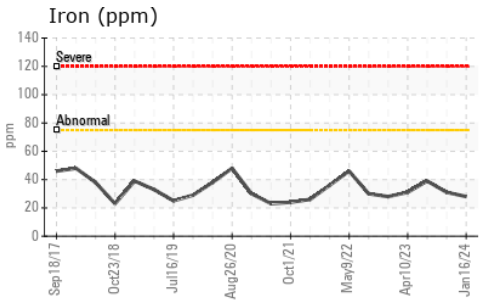


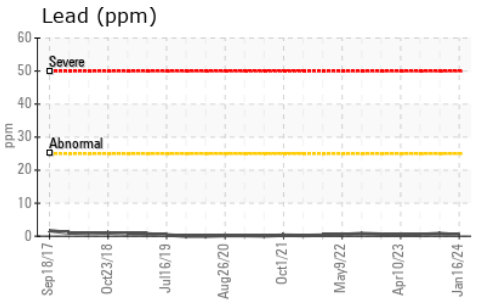
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**29.3**	31.5	32.6

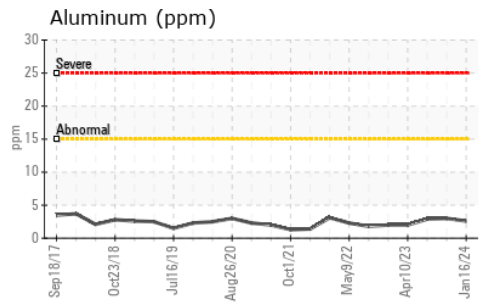
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

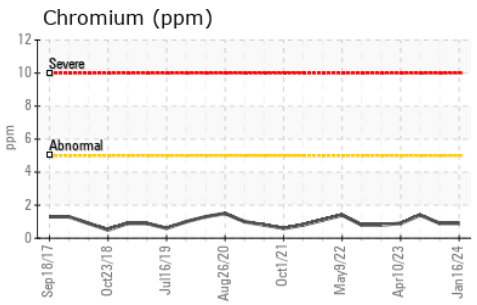
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	**12.6**	▲ 12.4	13.1

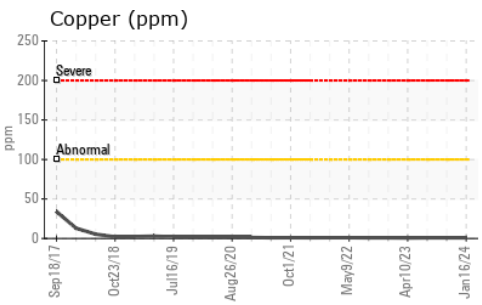
GRAPHS

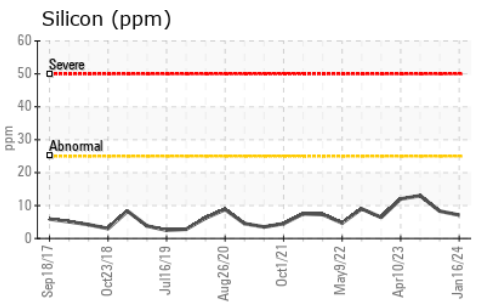


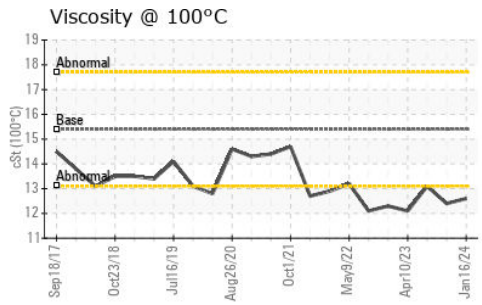


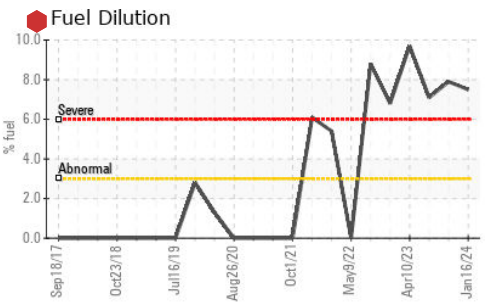












ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 207 - Pickering SW**
Sample No. : GFL0110712 **Recieved** : 18 Jan 2024 1034 TOY AVENUE, PICKERING YARD
Lab Number : 02609628 **Diagnosed** : 19 Jan 2024 PICKERING, ON
Unique Number : 5710714 **Diagnostician** : Kevin Marson CA L1W 3P1
Test Package : MOB 1 (Additional Tests: PercentFuel) Contact: Ian Patton

To discuss this sample report, contact Customer Service at 1-800-268-2131. ipatton@gflenv.com
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: (905)831-6297
Validity of results and interpretation are based on the sample and information as supplied. F: (905)426-3577