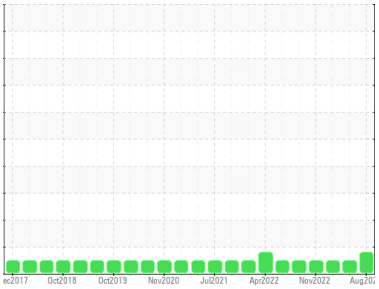
OIL ANALYSIS REPORT

Sample Rating Trend



FUEL

Machine Id
701039
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0085691**	GFL0077309	GFL0070438
Sample Date		Client Info		**17 Aug 2023**	19 May 2023	23 Mar 2023
Machine Age	hrs	Client Info		**0**	416	416
Oil Age	hrs	Client Info		**0**	416	416
Oil Changed		Client Info		**N/A**	Changed	Changed
Sample Status				**MARGINAL**	NORMAL	NORMAL

CONTAMINATION	method	limit/base	current	history1	history2
Glycol	WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	**15**	9	14
Chromium	ppm	ASTM D5185(m)	>20	**<1**	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	**<1**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	<1	<1
Silver	ppm	ASTM D5185(m)	>3	**<1**	0	0
Aluminum	ppm	ASTM D5185(m)	>20	**2**	1	2
Lead	ppm	ASTM D5185(m)	>40	**<1**	0	0
Copper	ppm	ASTM D5185(m)	>330	**1**	<1	<1
Tin	ppm	ASTM D5185(m)	>15	**0**	<1	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	**3**	2	1
Barium	ppm	ASTM D5185(m)	0	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	60	**57**	56	59
Manganese	ppm	ASTM D5185(m)	0	**<1**	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	**916**	926	950
Calcium	ppm	ASTM D5185(m)	1070	**1015**	1049	1119
Phosphorus	ppm	ASTM D5185(m)	1150	**1002**	1034	1036
Zinc	ppm	ASTM D5185(m)	1270	**1152**	1142	1188
Sulfur	ppm	ASTM D5185(m)	2060	**2368**	2478	2483
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**4**	3	4
Sodium	ppm	ASTM D5185(m)		**1**	1	2
Potassium	ppm	ASTM D5185(m)	>20	**1**	<1	<1
Fuel	%	ASTM D7593*	>5	▲ **4**	<1.0	<1.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0.3**	0.2	0.2
Nitration	Abs/cm	ASTM D7624*	>20	**9.5**	8.9	10.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	**20.9**	19.4	23.4

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**16.2**	16.1	18.2

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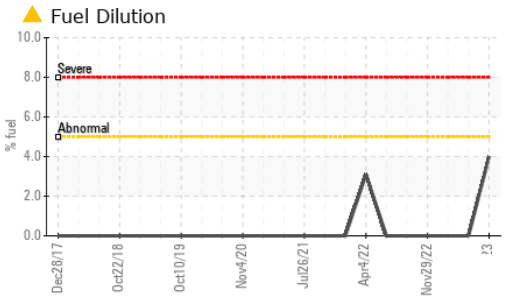
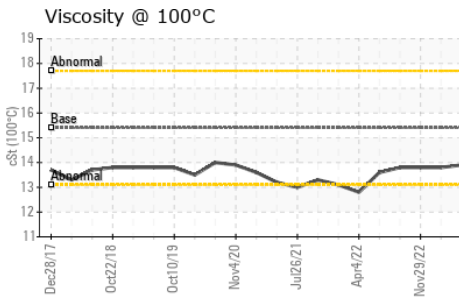
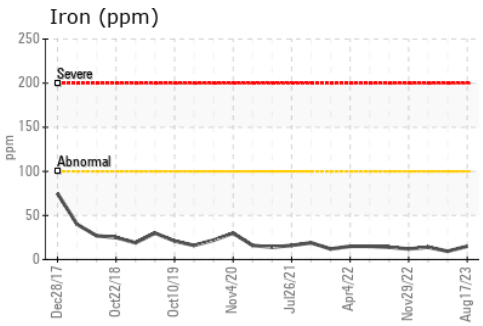


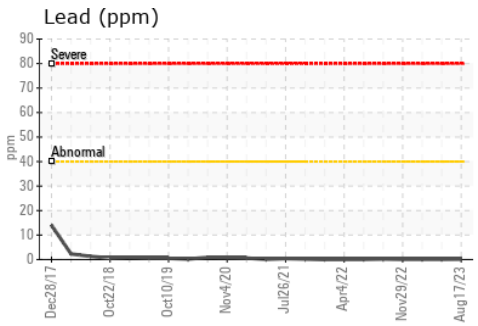


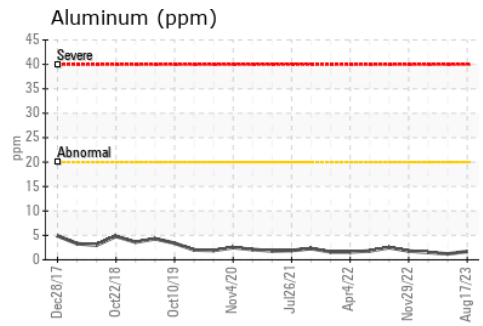
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

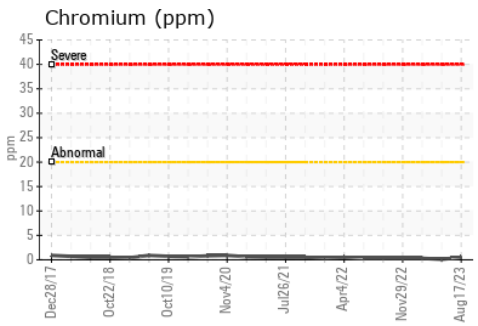
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	**12.9**	13.9	13.8

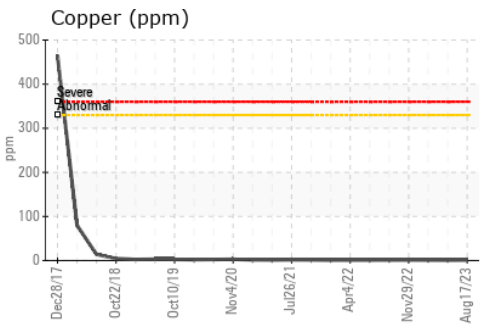
GRAPHS

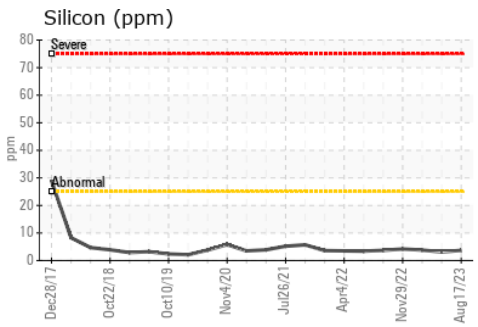


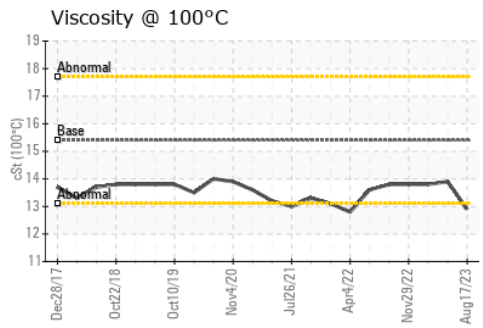


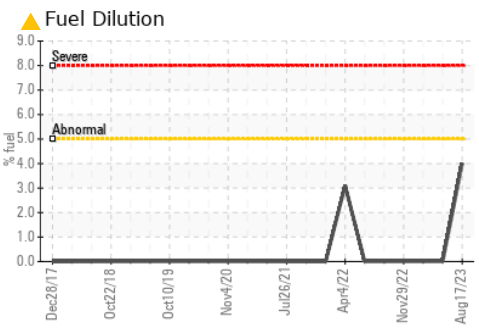












ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 221 - Windsor**
Sample No. : GFL0085691 **Received** : 21 Aug 2023 905 Tecumseh Road W
Lab Number : 02577034 **Diagnosed** : 22 Aug 2023 Windsor, ON
Unique Number : 5630094 **Diagnostician** : Wes Davis CA N8W 4J5
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel) Contact: Rhys Marotte

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