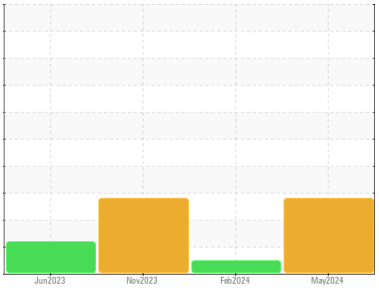
OIL ANALYSIS REPORT

Machine Id
5599
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (--- GAL)

Sample Rating Trend



FUEL

DIAGNOSIS

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.

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0118959**	GFL0102588	GFL0101712
Sample Date		Client Info		**03 May 2024**	05 Feb 2024	22 Nov 2023
Machine Age	hrs	Client Info		**21234**	0	20429
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Changed**	N/A	Changed
Sample Status				**SEVERE**	NORMAL	SEVERE

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>120	**7**	12	12
Chromium	ppm	ASTM D5185(m)	>20	**0**	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	**<1**	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	**0**	0	0
Silver	ppm	ASTM D5185(m)	>2	**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>20	**3**	3	5
Lead	ppm	ASTM D5185(m)	>40	**0**	<1	2
Copper	ppm	ASTM D5185(m)	>330	**1**	3	2
Tin	ppm	ASTM D5185(m)	>15	**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)	2	**1**	2	2
Barium	ppm	ASTM D5185(m)	0	**0**	0	<1
Molybdenum	ppm	ASTM D5185(m)	50	**50**	60	46
Manganese	ppm	ASTM D5185(m)	0	**0**	0	0
Magnesium	ppm	ASTM D5185(m)	950	**810**	979	692
Calcium	ppm	ASTM D5185(m)	1050	**890**	1092	786
Phosphorus	ppm	ASTM D5185(m)	995	**858**	990	698
Zinc	ppm	ASTM D5185(m)	1180	**997**	1186	861
Sulfur	ppm	ASTM D5185(m)	2600	**2223**	2478	1958
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**3**	5	8
Sodium	ppm	ASTM D5185(m)		**45**	9	15
Potassium	ppm	ASTM D5185(m)	>20	**2**	5	4
Fuel	%	ASTM D7593*	>3.0	▲ **15.3**	0.8	▲ 17

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>4	**0**	0.2	0.3
Nitration	Abs/cm	ASTM D7624*	>20	**7.5**	8.6	9.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	**17.6**	20.2	20.4

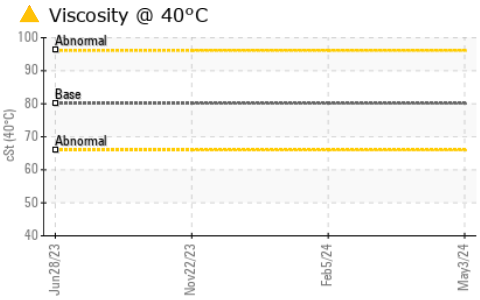
OIL ANALYSIS REPORT

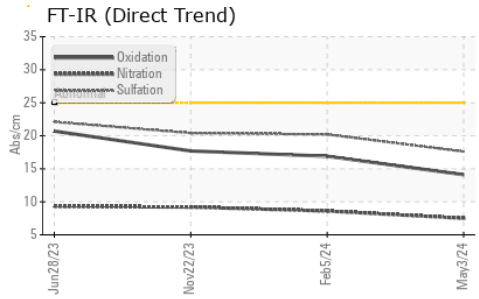
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**14.1**	16.9	17.7

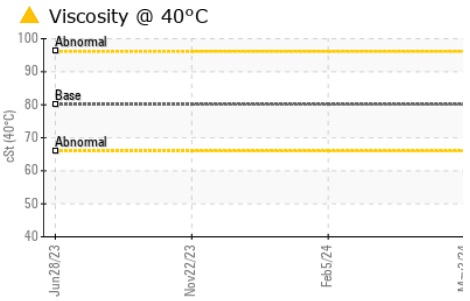
VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

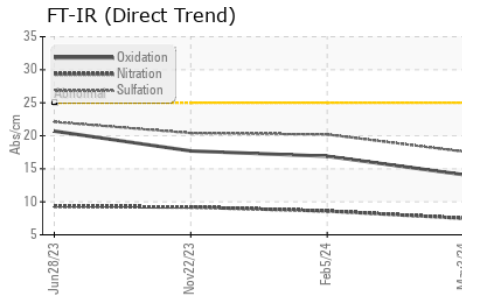
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	80.1	▲ **48.5**	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	▲ **8.4**	11.2	▲ 7.7
Viscosity Index (VI)	Scale	ASTM D2270*	144	**149**	---	---

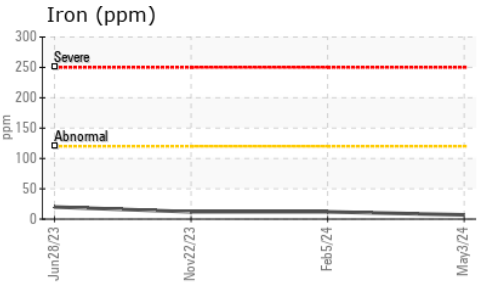
GRAPHS

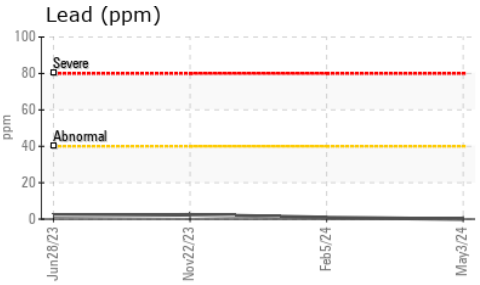


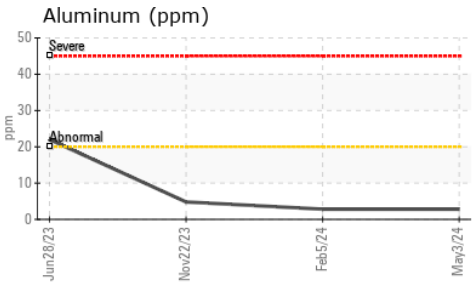


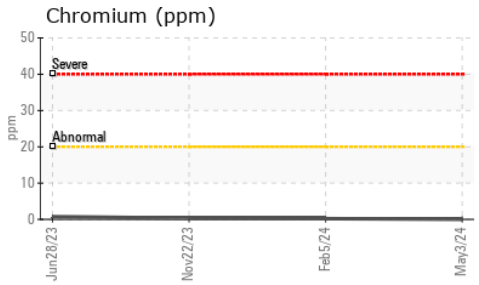


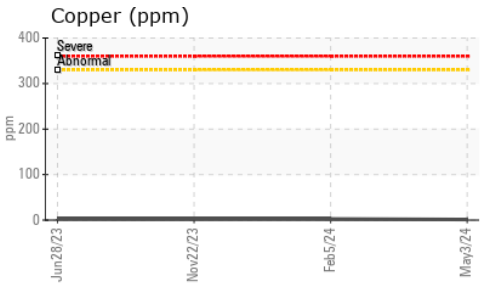


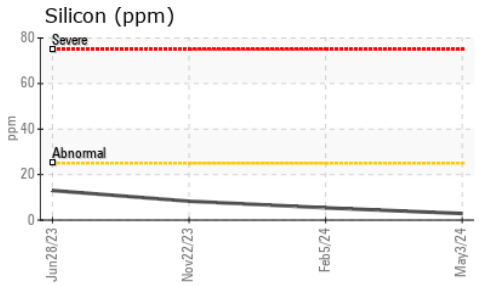


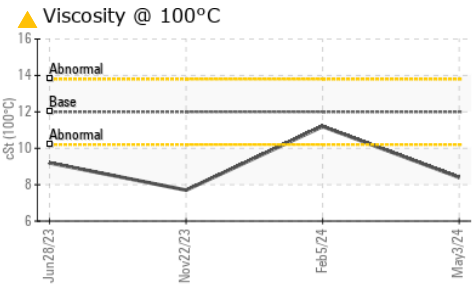


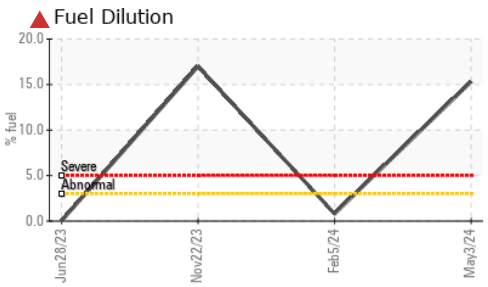












ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0118959
Lab Number : 02634039
Unique Number : 5775192
Test Package : MOB 1 (Additional Tests: FuelDilution, KV40, PercentFuel, VI)

Received : 08 May 2024
Tested : 09 May 2024
Diagnosed : 09 May 2024 - Wes Davis

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.

GFL Environmental - 554 - Edmonton SW
8409 -15th Street NW
Edmonton, AB
CA T6P 0B8
Contact: Tim Greig
tgreig@gflenv.com
T: (780)231-0521
F: