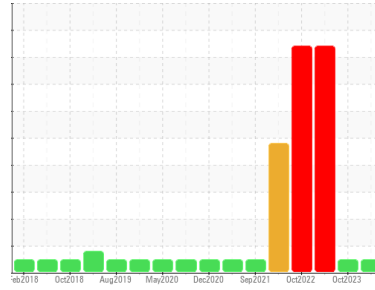




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
701048

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination 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	GFL0097443	GFL0085675	GFL0059882
Sample Date	Client Info	15 Jan 2024	16 Oct 2023	08 Nov 2022
Machine Age	hrs	610	610	0
Oil Age	hrs	610	610	108
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		NORMAL	NORMAL	SEVERE

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	<1.0	<1.0
Water	WC Method >0.2	NEG	NEG	NEG
Glycol	WC Method	NEG	0.0	0.187

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >100	12	12	4
Chromium	ppm ASTM D5185(m) >20	<1	<1	0
Nickel	ppm ASTM D5185(m) >4	0	<1	<1
Titanium	ppm ASTM D5185(m)	0	0	<1
Silver	ppm ASTM D5185(m) >3	0	<1	<1
Aluminum	ppm ASTM D5185(m) >20	2	2	2
Lead	ppm ASTM D5185(m) >40	0	0	1
Copper	ppm ASTM D5185(m) >330	1	3	38
Tin	ppm ASTM D5185(m) >15	0	<1	<1
Antimony	ppm ASTM D5185(m)	0	0	<1
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	4	34	16
Barium	ppm ASTM D5185(m) 0	0	<1	0
Molybdenum	ppm ASTM D5185(m) 60	58	60	57
Manganese	ppm ASTM D5185(m) 0	0	0	<1
Magnesium	ppm ASTM D5185(m) 1010	854	280	776
Calcium	ppm ASTM D5185(m) 1070	1153	1860	914
Phosphorus	ppm ASTM D5185(m) 1150	986	996	970
Zinc	ppm ASTM D5185(m) 1270	1173	1178	1025
Sulfur	ppm ASTM D5185(m) 2060	2585	2808	2481
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

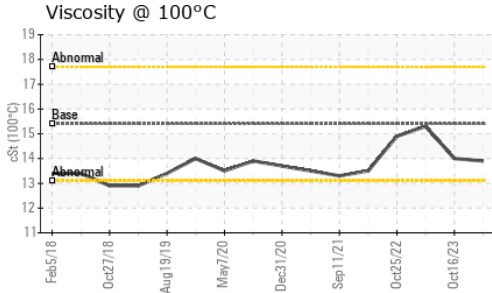
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	4	10	5
Sodium	ppm ASTM D5185(m)	4	11	▲ 1205
Potassium	ppm ASTM D5185(m) >20	3	9	▲ 256

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	0.1	0.1	0
Nitration	Abs/cm ASTM D7624* >20	9.3	8.9	9.1
Sulfation	Abs/.1mm ASTM D7415* >30	21.3	21.2	20.3



OIL ANALYSIS REPORT



FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs./1mm ASTM D7414*	>25	17.5	16.8	14.7

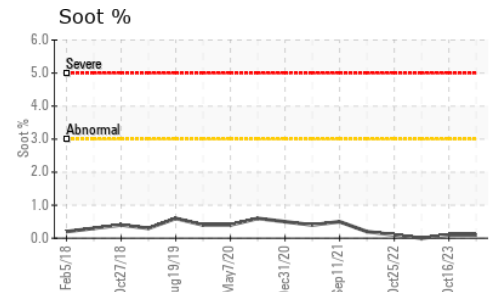
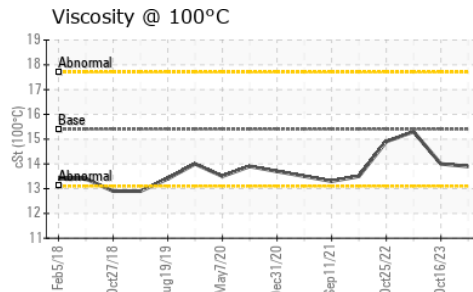
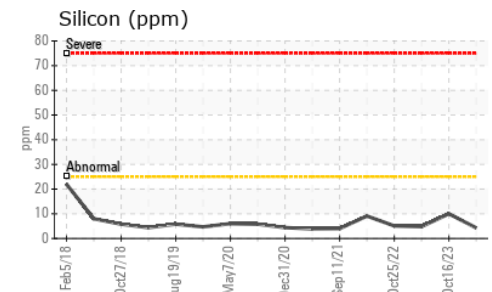
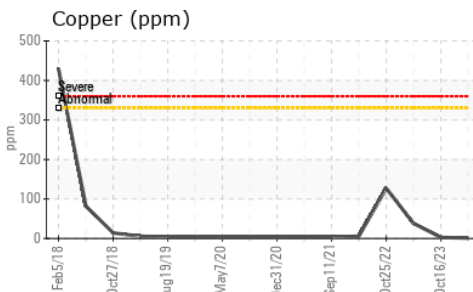
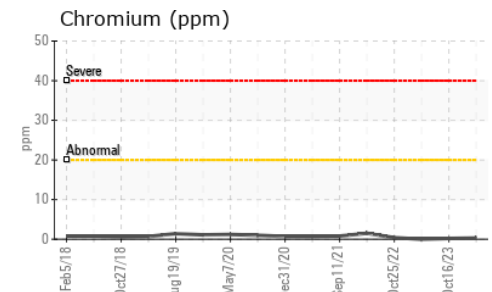
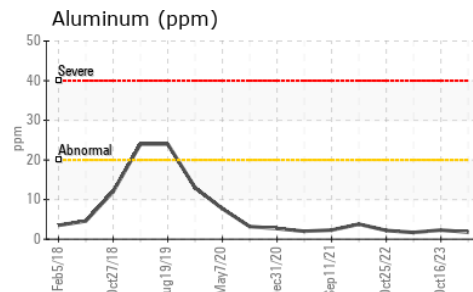
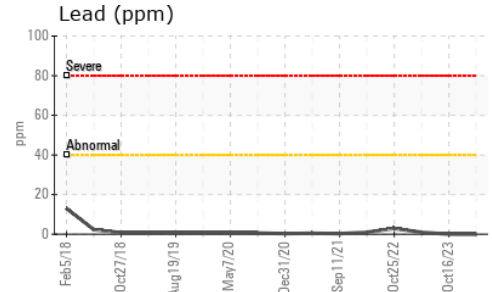
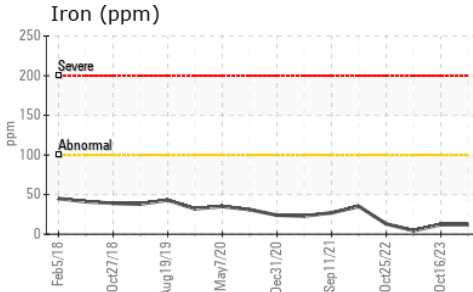
VISUAL

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 @ 100°C	cSt ASTM D7279(m)	15.4	13.9	14.0	15.3

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 221 - Windsor**
Sample No. : GFL0097443 **Received** : 17 Jan 2024
Lab Number : 02609190 **Diagnosed** : 17 Jan 2024
Unique Number : 5710276 **Diagnostician** : Wes Davis
Test Package : MOB 1

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.

Contact: Rhys Marotte
 rmarotte@gflenv.com

T:
F: