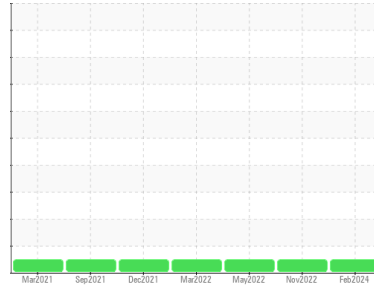




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
501092

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

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	GFL0108241	GFL0047673	GFL0047702	
Sample Date	Client Info	13 Feb 2024	25 Nov 2022	26 May 2022	
Machine Age	hrs	Client Info	12339	9334	8048
Oil Age	hrs	Client Info	676	732	600
Oil Changed	Client Info	Changed	Changed	Changed	
Sample Status		NORMAL	NORMAL	NORMAL	

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	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >100	62	30	23
Chromium	ppm ASTM D5185(m) >20	2	2	1
Nickel	ppm ASTM D5185(m) >4	<1	<1	0
Titanium	ppm ASTM D5185(m)	0	<1	0
Silver	ppm ASTM D5185(m) >3	0	0	0
Aluminum	ppm ASTM D5185(m) >20	8	5	4
Lead	ppm ASTM D5185(m) >40	2	9	6
Copper	ppm ASTM D5185(m) >330	<1	<1	<1
Tin	ppm ASTM D5185(m) >15	<1	<1	<1
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	2	2	2
Barium	ppm ASTM D5185(m) 0	0	0	0
Molybdenum	ppm ASTM D5185(m) 50	61	62	61
Manganese	ppm ASTM D5185(m) 0	<1	<1	<1
Magnesium	ppm ASTM D5185(m) 950	1008	1017	1047
Calcium	ppm ASTM D5185(m) 1050	1146	1139	1101
Phosphorus	ppm ASTM D5185(m) 995	1036	1111	1061
Zinc	ppm ASTM D5185(m) 1180	1209	1268	1243
Sulfur	ppm ASTM D5185(m) 2600	2480	2478	2482
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

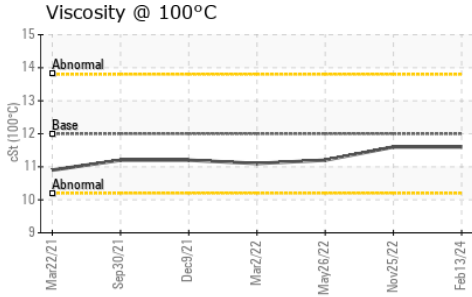
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	6	7	4
Sodium	ppm ASTM D5185(m)	3	2	1
Potassium	ppm ASTM D5185(m) >20	4	4	6

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	0.5	0.4	0.3
Nitration	Abs/cm ASTM D7624* >20	10.7	11.3	10.1
Sulfation	Abs/.1mm ASTM D7415* >30	23.4	24.7	23.7



OIL ANALYSIS REPORT



FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	21.8	21.2	18.8

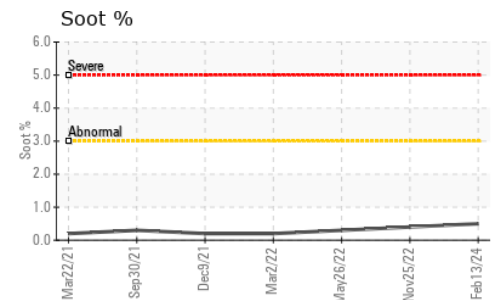
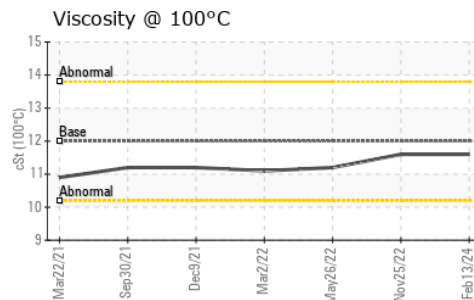
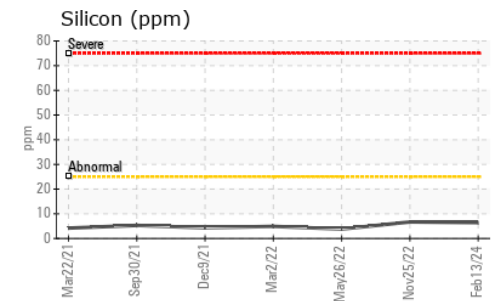
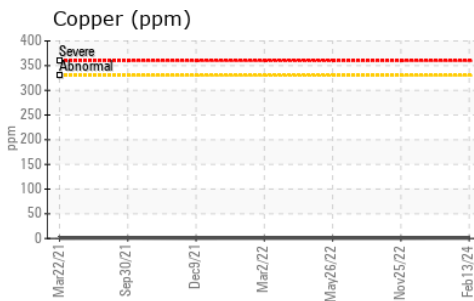
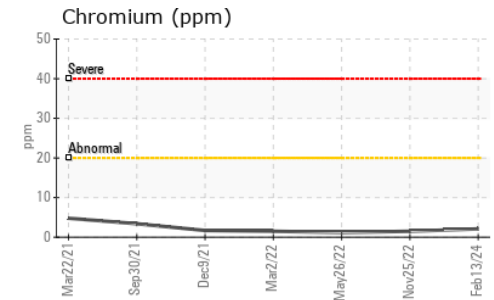
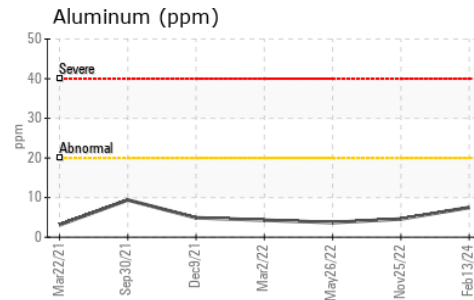
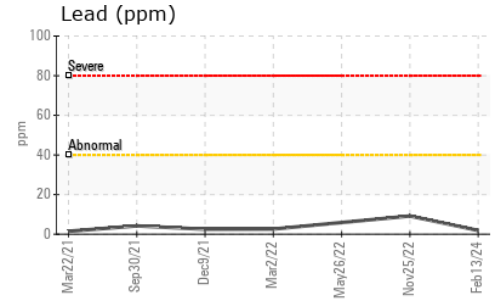
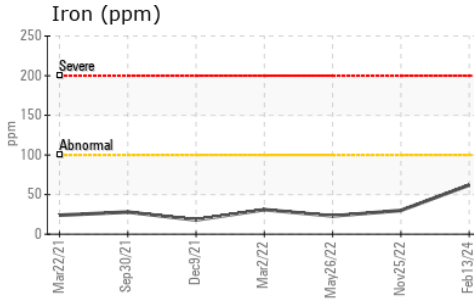
VISUAL

	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)	12.00	11.6	11.6	11.2

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0108241
Lab Number : **02617990**
Unique Number : 5735100
Test Package : MOB 1
Received : 26 Feb 2024
Tested : 26 Feb 2024
Diagnosed : 26 Feb 2024 - Wes Davis

GFL Environmental - 355 - Saskatoon
 100 Cory Road
 Saskatoon, SK
 CA S7K 3J7
 Contact: Ryan Polichuk
 rpolichuk@gflenv.com
 T: (306)244-9500
 F:

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.