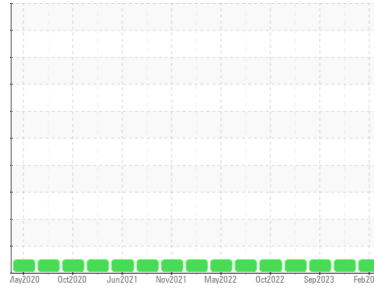




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
728003
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- 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	GFL0113251	GFL0102878	GFL0090858
Sample Date	Client Info	27 Feb 2024	30 Nov 2023	18 Sep 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	14892	14286
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		NORMAL	NORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<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) >120	7	5	5
Chromium	ppm ASTM D5185(m) >20	<1	0	<1
Nickel	ppm ASTM D5185(m) >5	0	<1	<1
Titanium	ppm ASTM D5185(m) >2	0	0	0
Silver	ppm ASTM D5185(m) >2	0	<1	<1
Aluminum	ppm ASTM D5185(m) >20	3	2	2
Lead	ppm ASTM D5185(m) >40	0	<1	0
Copper	ppm ASTM D5185(m) >330	<1	2	<1
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) 250	108	108	95
Barium	ppm ASTM D5185(m) 10	0	<1	0
Molybdenum	ppm ASTM D5185(m) 100	3	7	2
Manganese	ppm ASTM D5185(m)	0	0	0
Magnesium	ppm ASTM D5185(m) 450	24	19	30
Calcium	ppm ASTM D5185(m) 3000	2104	2093	2118
Phosphorus	ppm ASTM D5185(m) 1150	927	913	1001
Zinc	ppm ASTM D5185(m) 1350	1108	1140	1131
Sulfur	ppm ASTM D5185(m) 4250	2978	2868	2837
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

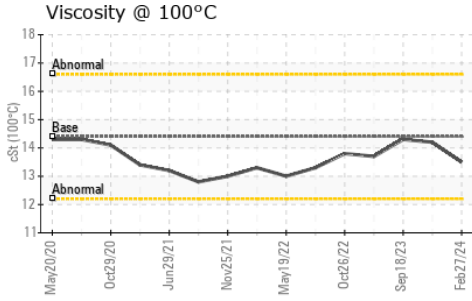
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	3	2	2
Sodium	ppm ASTM D5185(m) >158	3	2	3
Potassium	ppm ASTM D5185(m) >20	6	5	6

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >4	0.4	0.2	0.2
Nitration	Abs/cm ASTM D7624* >20	8.6	8.6	8.3
Sulfation	Abs./1mm ASTM D7415* >30	22.5	21.6	21.6



OIL ANALYSIS REPORT



FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs./1mm	ASTM D7414*	>25	16.5	16.3	16.3

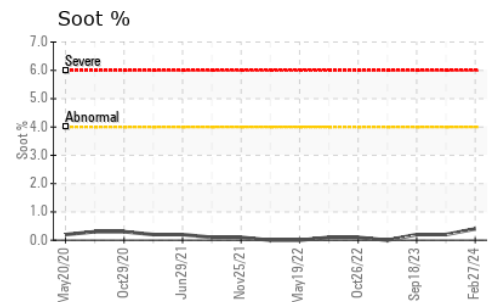
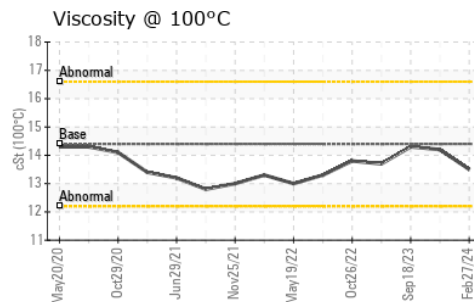
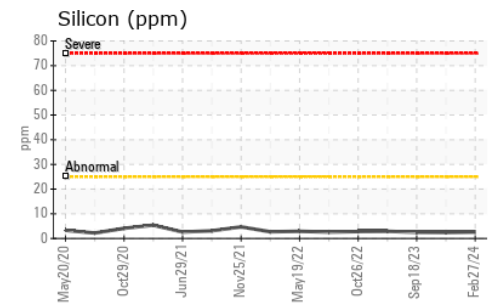
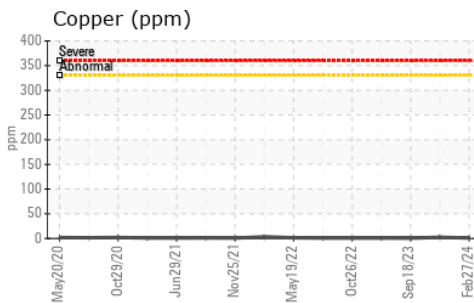
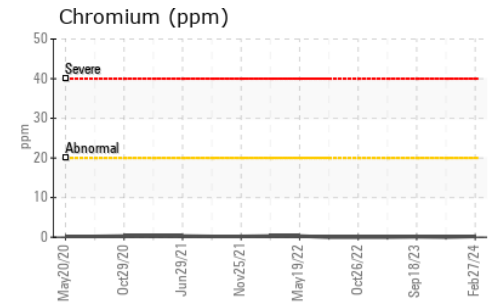
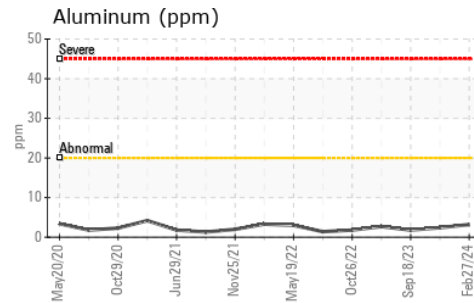
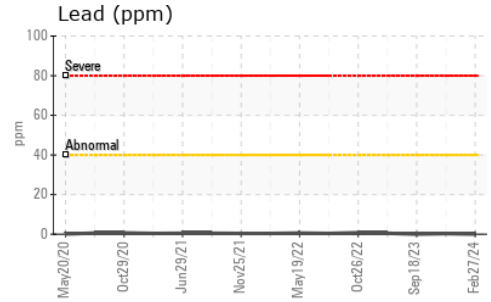
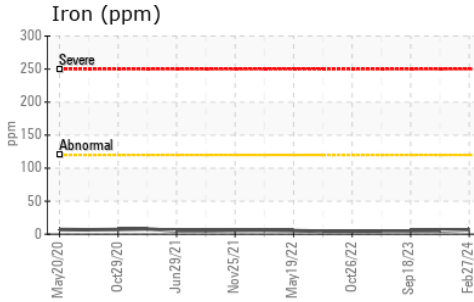
VISUAL

	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)	14.4	13.5	14.2	14.3

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0113251
Lab Number : **02618574**
Unique Number : 5735684
Test Package : MOB 1
Received : 28 Feb 2024
Tested : 28 Feb 2024
Diagnosed : 28 Feb 2024 - Wes Davis

GFL Environmental - 246 - Windsor
 2700 Deziel Dr
 Windsor, ON
 CA N8W 5H8
 Contact: Dave Varga
 dvarga@gflenv.com
 T: (519)944-8009
 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.