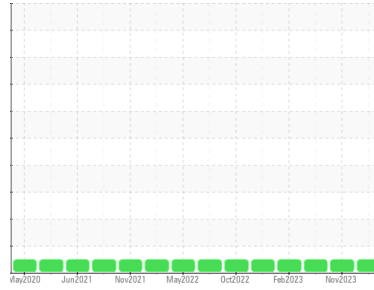




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
725002
 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		GFL0113253	GFL0097323	GFL0078494
Sample Date	Client Info		27 Feb 2024	16 Nov 2023	24 Jul 2023
Machine Age	hrs	Client Info	0	0	22482
Oil Age	hrs	Client Info	24529	23946	0
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	8	17
Chromium	ppm	ASTM D5185(m) >20	0	0	<1
Nickel	ppm	ASTM D5185(m) >5	<1	0	<1
Titanium	ppm	ASTM D5185(m) >2	0	0	<1
Silver	ppm	ASTM D5185(m) >2	0	<1	0
Aluminum	ppm	ASTM D5185(m) >20	5	<1	2
Lead	ppm	ASTM D5185(m) >40	0	<1	1
Copper	ppm	ASTM D5185(m) >330	<1	<1	<1
Tin	ppm	ASTM D5185(m) >15	0	0	<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) 250	16	81	38
Barium	ppm	ASTM D5185(m) 10	0	<1	0
Molybdenum	ppm	ASTM D5185(m) 100	51	18	19
Manganese	ppm	ASTM D5185(m)	0	0	<1
Magnesium	ppm	ASTM D5185(m) 450	732	242	260
Calcium	ppm	ASTM D5185(m) 3000	1249	1834	1801
Phosphorus	ppm	ASTM D5185(m) 1150	869	880	948
Zinc	ppm	ASTM D5185(m) 1350	1016	1101	1126
Sulfur	ppm	ASTM D5185(m) 4250	2479	2559	2540
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

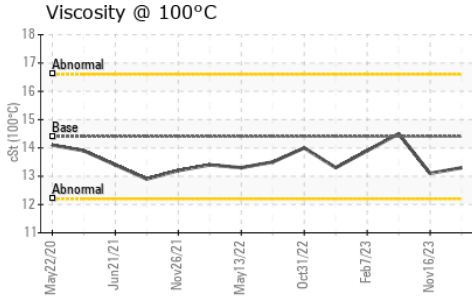
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	3	3	5
Sodium	ppm	ASTM D5185(m) >158	2	3	6
Potassium	ppm	ASTM D5185(m) >20	2	3	5

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >4	0.4	0.4	0.9
Nitration	Abs/cm	ASTM D7624* >20	6.4	7.5	8.7
Sulfation	Abs./1mm	ASTM D7415* >30	19.6	21.6	25.9



OIL ANALYSIS REPORT



FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs.:1mm ASTM D7414*	>25	15.4	16.2	20.2

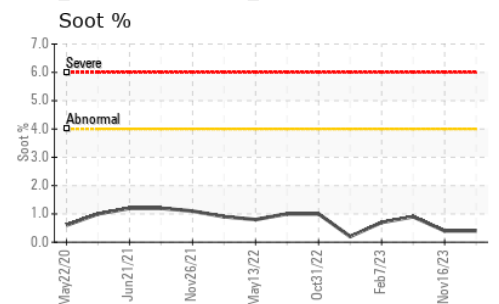
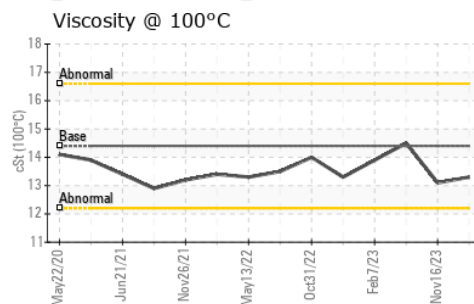
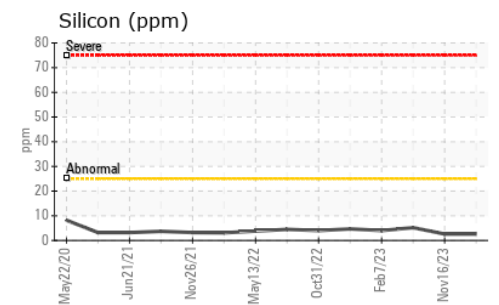
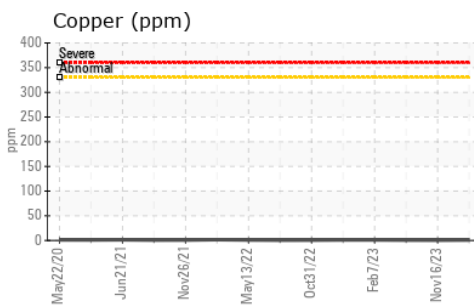
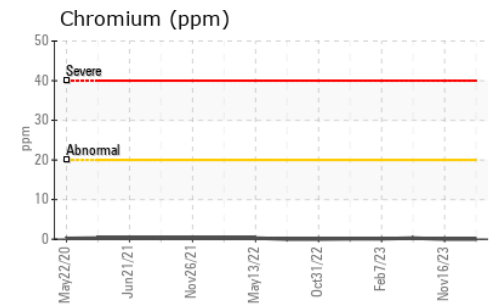
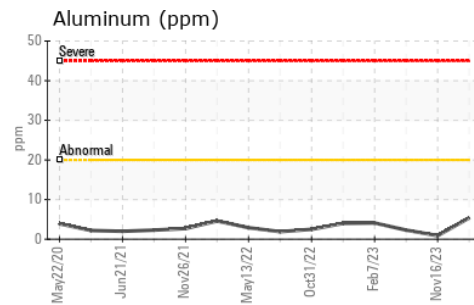
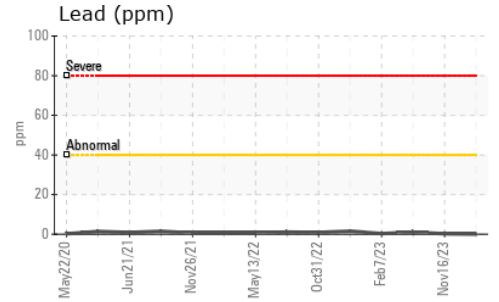
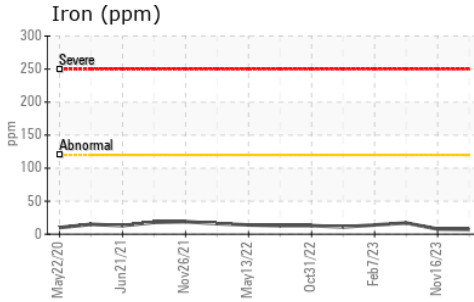
VISUAL

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	13.3	13.1	14.5

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0113253
Lab Number : 02618582
Unique Number : 5735692
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
 dvara@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.