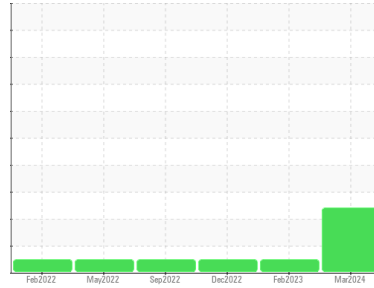




OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Area
[1236452]
 Machine Id
816000

Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

DIAGNOSIS

▲ Recommendation

Check for low coolant level. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

▲ Contamination

Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative.

● Fluid Condition

The condition of the oil is acceptable for the time in service (see recommendation).

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0093961	GFL0062898	GFL0062887
Sample Date	Client Info	04 Mar 2024	27 Feb 2023	30 Dec 2022
Machine Age	hrs	0	13307	13003
Oil Age	hrs	0	13307	13003
Oil Changed	Client Info	N/A	N/A	Changed
Sample Status		ABNORMAL	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

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >100	40	15	28
Chromium	ppm ASTM D5185(m) >20	1	<1	1
Nickel	ppm ASTM D5185(m) >4	<1	<1	<1
Titanium	ppm ASTM D5185(m)	0	<1	<1
Silver	ppm ASTM D5185(m) >3	0	0	0
Aluminum	ppm ASTM D5185(m) >20	6	3	4
Lead	ppm ASTM D5185(m) >40	0	0	0
Copper	ppm ASTM D5185(m) >330	1	<1	2
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) 250	5	5	5
Barium	ppm ASTM D5185(m) 10	0	0	0
Molybdenum	ppm ASTM D5185(m) 100	82	64	64
Manganese	ppm ASTM D5185(m)	0	<1	<1
Magnesium	ppm ASTM D5185(m) 450	873	944	964
Calcium	ppm ASTM D5185(m) 3000	1078	1117	1134
Phosphorus	ppm ASTM D5185(m) 1150	875	1065	1051
Zinc	ppm ASTM D5185(m) 1350	1097	1193	1183
Sulfur	ppm ASTM D5185(m) 4250	2584	2564	2480
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

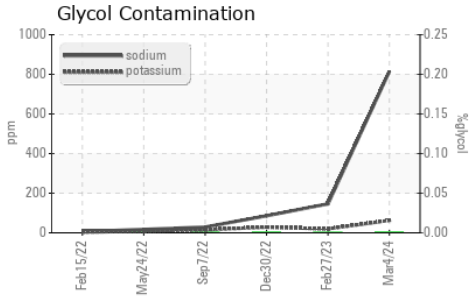
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	9	5	6
Sodium	ppm ASTM D5185(m) >216	815	146	86
Potassium	ppm ASTM D5185(m) >20	63	20	29
Glycol	% ASTM D7922*	0.0	0.0	0.0

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	0.7	0.3	0.5
Nitration	Abs/cm ASTM D7624* >20	12.7	9.5	10.2
Sulfation	Abs/.1mm ASTM D7415* >30	23.1	21.9	22.4



OIL ANALYSIS REPORT



FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs./1mm ASTM D7414*	>25	16.6	17.2

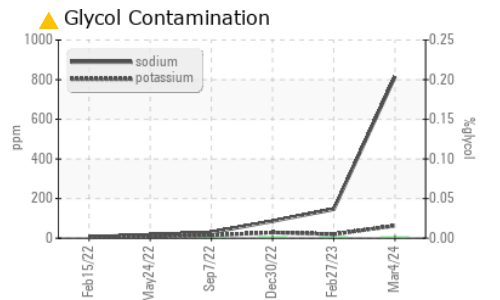
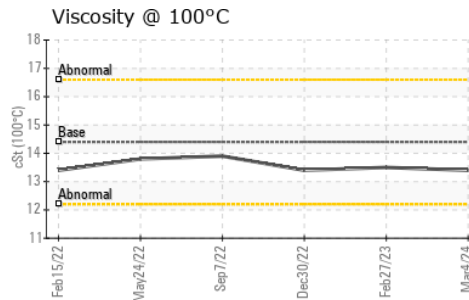
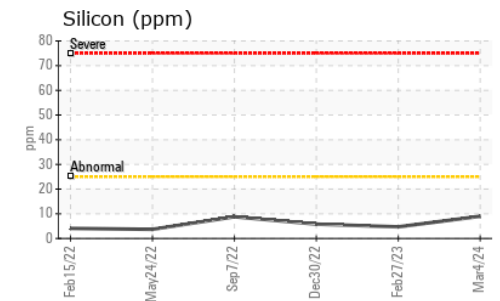
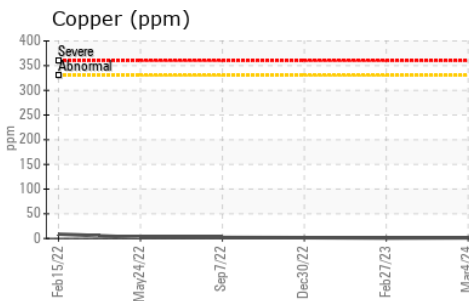
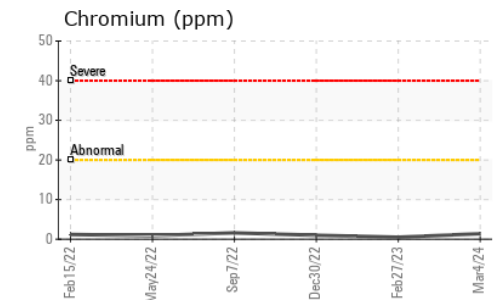
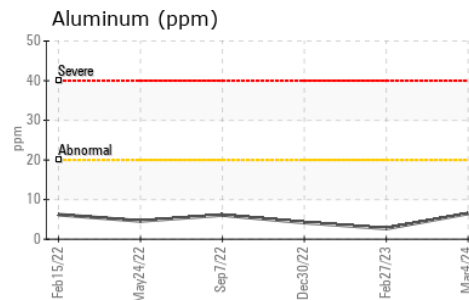
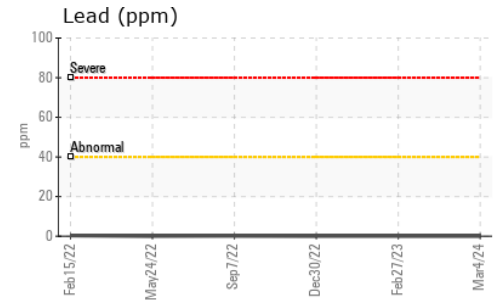
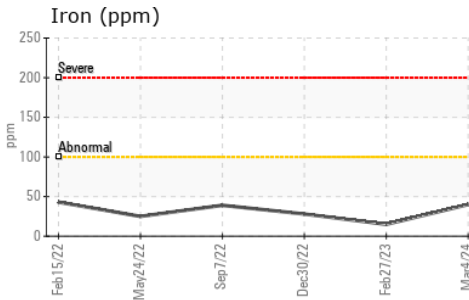
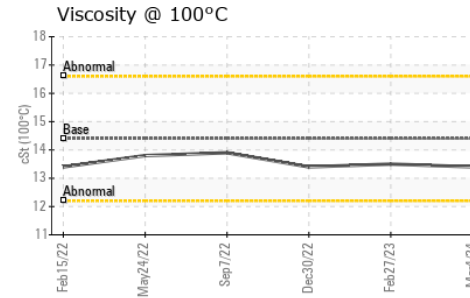
VISUAL

method	limit/base	current	history1	history2
Emulsified Water	scalar Visual*	>0.2	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	13.4

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0093961
Lab Number : 02620743
Unique Number : 5737853
Test Package : MOB 1 (Additional Tests: Glycol)

Received : 08 Mar 2024
Tested : 08 Mar 2024
Diagnosed : 11 Mar 2024 - Kevin Marson
GFL Environmental - 777 - Belleville-Municipal waste
 197 Putman Industrial Road
 Belleville, ON
 CA K8N 4Z6
 Contact: Andrea Michael
 amichael@gflenv.com
 T: (613)962-7144
 F: (613)962-1994

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.