



Area
[1226081]
Machine Id
810046
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0093951	GFL0093944	GFL0062940
Sample Date		Client Info		15 Feb 2024	14 Nov 2023	21 Aug 2023
Machine Age	hrs	Client Info		5266	4704	4202
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>80	30	24	18
Chromium	ppm	ASTM D5185(m)	>5	2	1	1
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>30	4	4	4
Lead	ppm	ASTM D5185(m)	>30	<1	<1	0
Copper	ppm	ASTM D5185(m)	>150	3	3	2
Tin	ppm	ASTM D5185(m)	>5	<1	<1	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	VLITE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

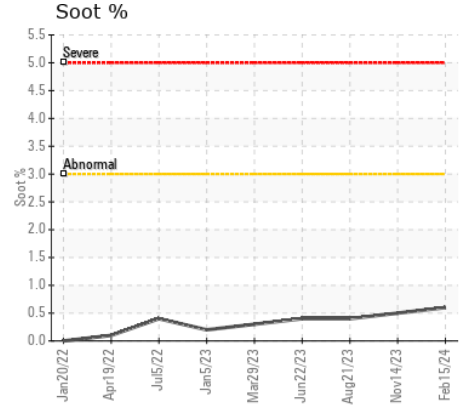
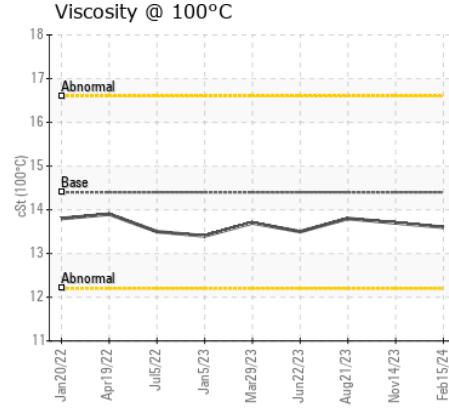
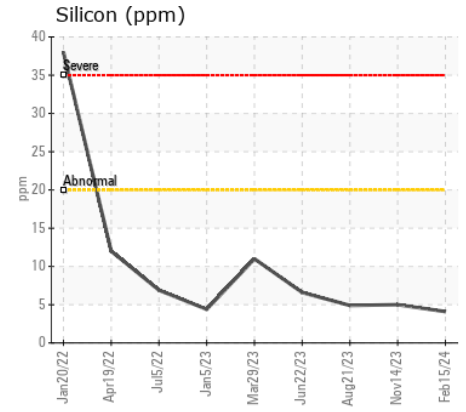
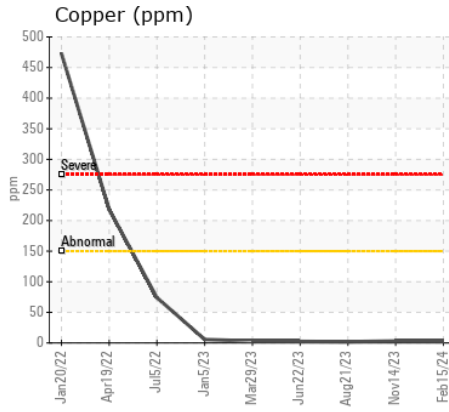
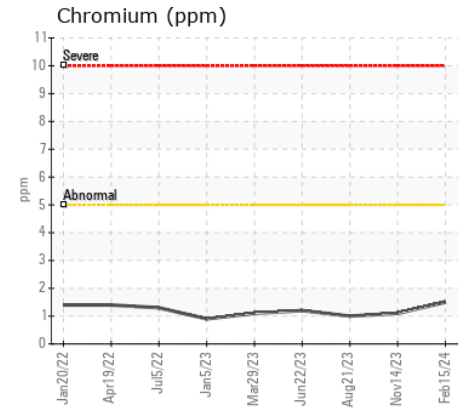
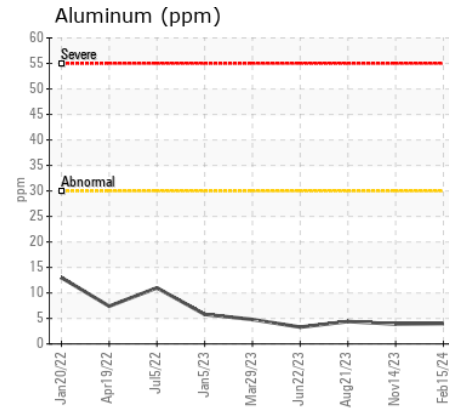
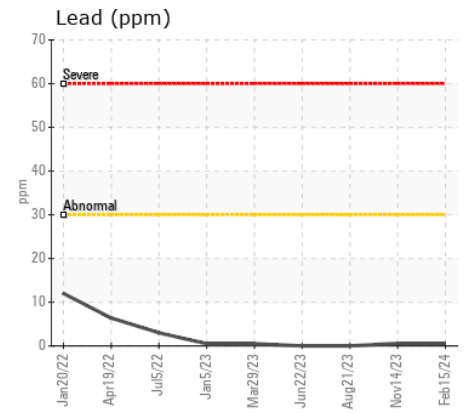
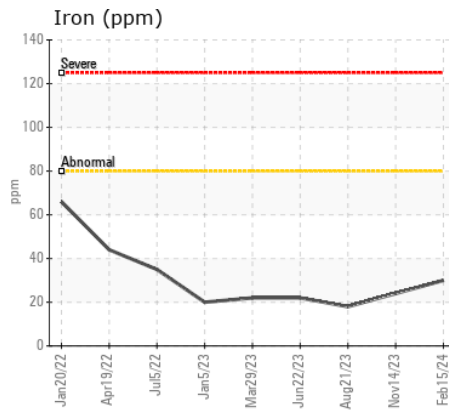
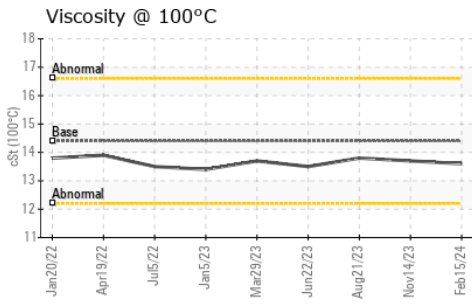
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>20	4	5	5
Potassium	ppm	ASTM D5185(m)	>20	4	6	8
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.6	0.5	0.4
Nitration	Abs/cm	ASTM D7624*	>20	10.6	9.9	9.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.1	21.4	21.2
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)	>216	8	8	8
Boron	ppm	ASTM D5185(m)	250	5	6	5
Barium	ppm	ASTM D5185(m)	10	0	<1	0
Molybdenum	ppm	ASTM D5185(m)	100	59	61	59
Manganese	ppm	ASTM D5185(m)		0	0	<1
Magnesium	ppm	ASTM D5185(m)	450	933	971	953
Calcium	ppm	ASTM D5185(m)	3000	1119	1101	1077
Phosphorus	ppm	ASTM D5185(m)	1150	980	994	1054
Zinc	ppm	ASTM D5185(m)	1350	1158	1223	1201
Sulfur	ppm	ASTM D5185(m)	4250	2501	2452	2514
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.0	18.0	17.1
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	13.6	13.7	13.8



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : GFL0093951
Lab Number : 02616139
Unique Number : 5733249
Test Package : MOB 1 (Additional Tests: Visual)

Received : 16 Feb 2024
Tested : 16 Feb 2024
Diagnosed : 16 Feb 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.