

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Area  
**GFL211 [1257225]**  
Machine Id  
**901018**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (36 LTR)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0093963</b>	GFL0093955	GFL0093930
Sample Date		Client Info		<b>10 Apr 2024</b>	31 Jan 2024	18 Oct 2023
Machine Age	hrs	Client Info		<b>0</b>	15180	14649
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	<b>7</b>	8	7
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	2	2
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	2	<1
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	1	<1
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

### CONTAMINATION

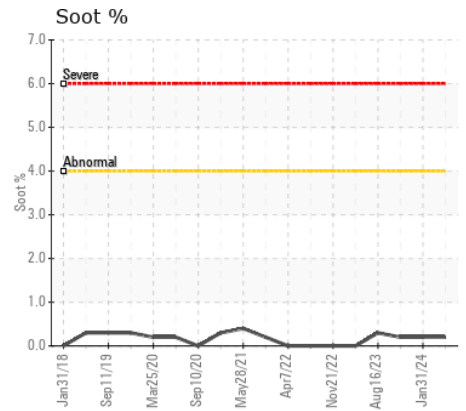
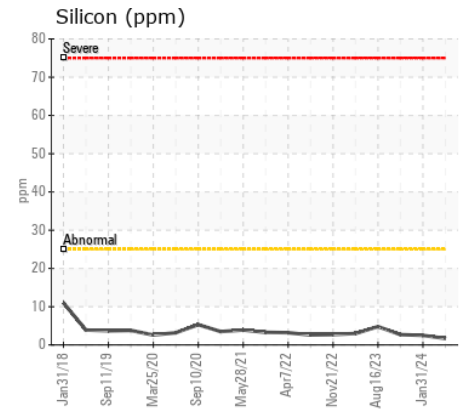
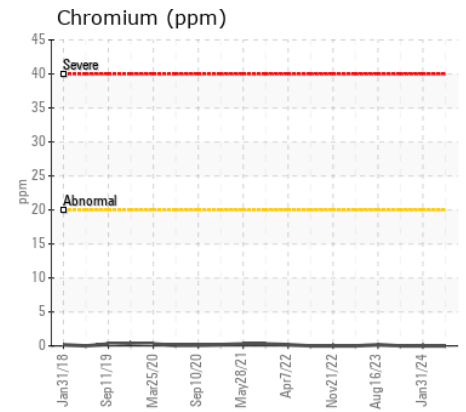
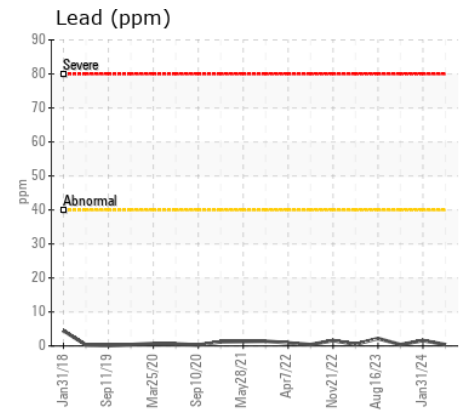
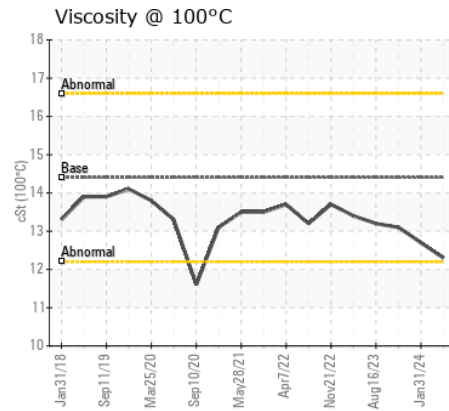
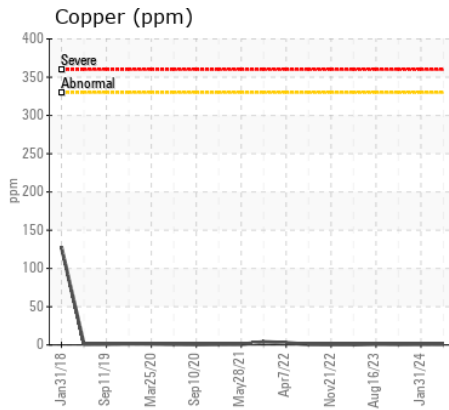
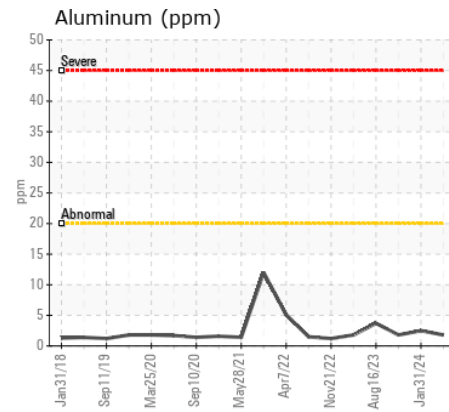
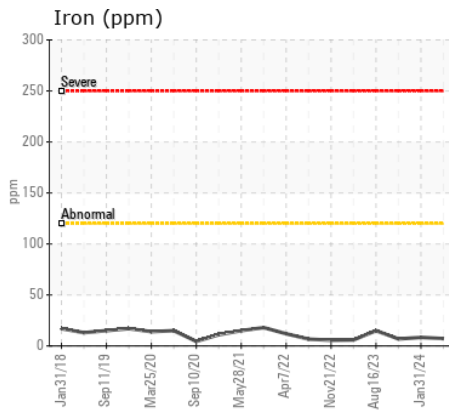
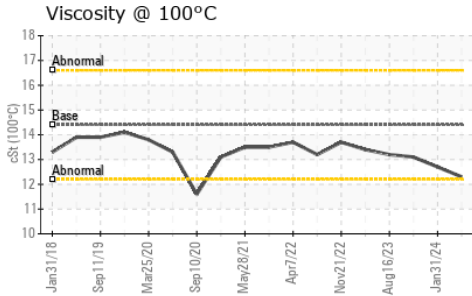
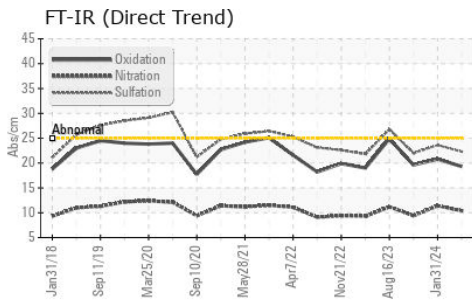
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>2</b>	2	3
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	1	<1
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>4	<b>0.2</b>	0.2	0.2
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.4</b>	11.4	9.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>22.3</b>	23.6	22.0
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)	>158	<b>4</b>	4	5
Boron	ppm	ASTM D5185(m)	250	<b>9</b>	8	6
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	100	<b>59</b>	60	54
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	450	<b>930</b>	930	867
Calcium	ppm	ASTM D5185(m)	3000	<b>1093</b>	1117	987
Phosphorus	ppm	ASTM D5185(m)	1150	<b>946</b>	974	879
Zinc	ppm	ASTM D5185(m)	1350	<b>1135</b>	1145	1078
Sulfur	ppm	ASTM D5185(m)	4250	<b>2353</b>	2510	2124
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>19.3</b>	20.8	19.6
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	<b>12.3</b>	12.7	13.1



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0093963  
**Lab Number** : 02631504  
**Unique Number** : 5772657  
**Test Package** : MOB 1 ( Additional Tests: Visual )

**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.