



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



Machine Id  
**228003**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (24 LTR)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0113242</b>	GFL0102847	GFL0097318
Sample Date		Client Info		<b>15 Apr 2024</b>	12 Feb 2024	25 Oct 2023
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>9183</b>	0	8201
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>	MARGINAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	<b>17</b>	23	14
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	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>	4	3
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

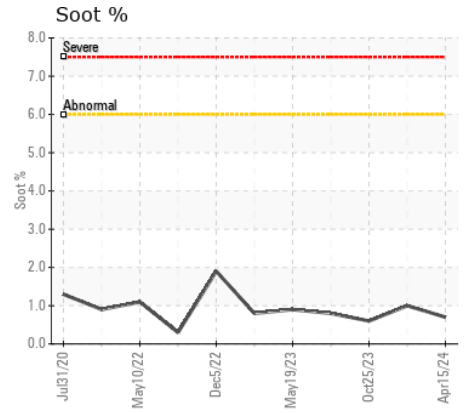
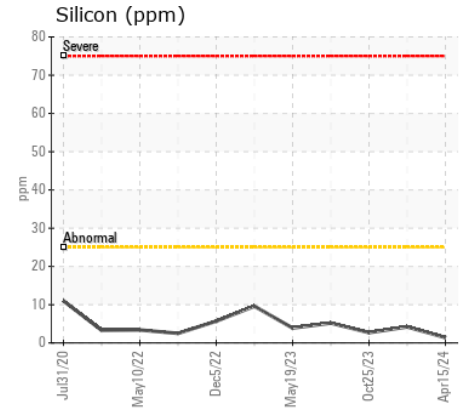
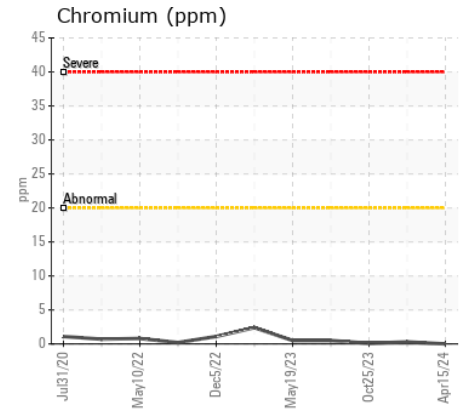
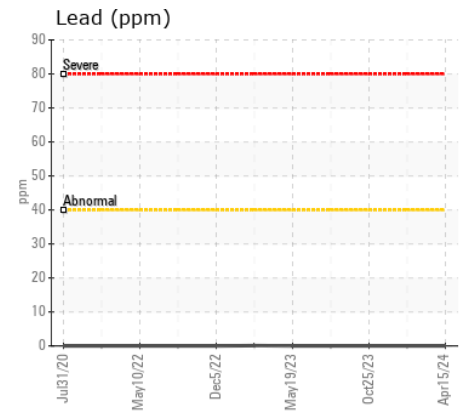
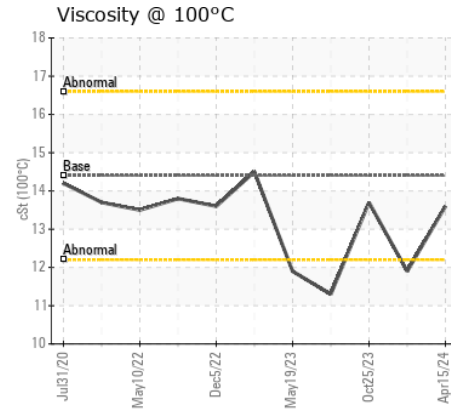
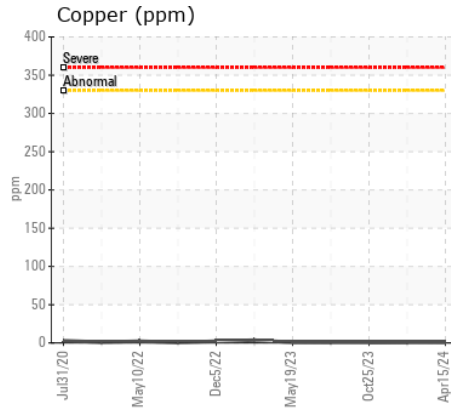
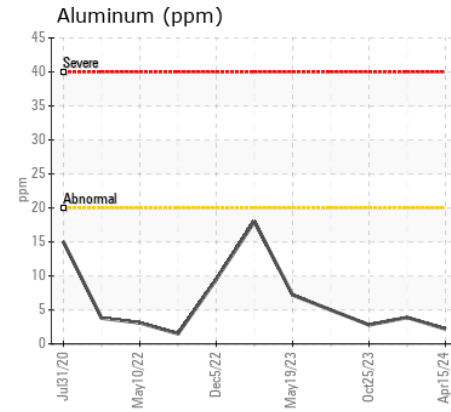
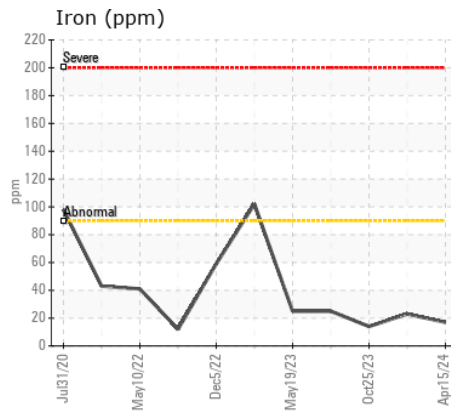
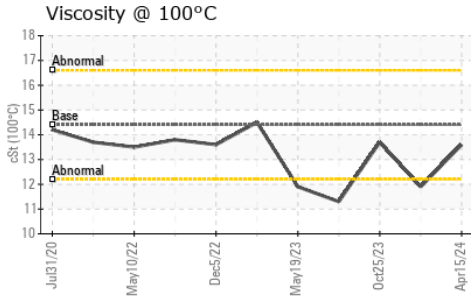
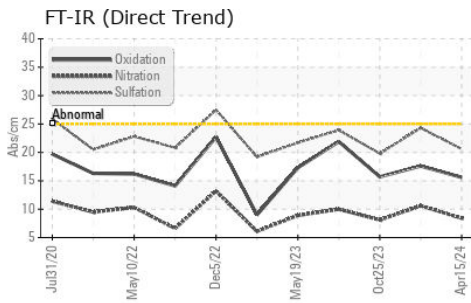
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>1</b>	4	3
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	3	<1
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	▲ 2.5	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>6	<b>0.7</b>	1	0.6
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.4</b>	10.6	8.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>20.6</b>	24.3	19.8
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>1</b>	2	2
Boron	ppm	ASTM D5185(m)	250	<b>10</b>	42	6
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	100	<b>52</b>	24	54
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	450	<b>811</b>	196	807
Calcium	ppm	ASTM D5185(m)	3000	<b>1168</b>	1958	1037
Phosphorus	ppm	ASTM D5185(m)	1150	<b>952</b>	901	914
Zinc	ppm	ASTM D5185(m)	1350	<b>1120</b>	1060	1077
Sulfur	ppm	ASTM D5185(m)	4250	<b>2437</b>	2792	2315
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>15.6</b>	17.6	15.7
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	<b>13.6</b>	11.9	13.7



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0113242  
**Lab Number** : 02629125  
**Unique Number** : 5762257  
**Test Package** : MOB 1  
**Received** : 16 Apr 2024  
**Tested** : 16 Apr 2024  
**Diagnosed** : 16 Apr 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.