



Machine Id  
**728003**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0113251</b>	GFL0102878	GFL0090858
Sample Date		Client Info		<b>27 Feb 2024</b>	30 Nov 2023	18 Sep 2023
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>14892</b>	14286	13786
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>	5	5
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>3</b>	2	2
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	<1	0
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	2	<1
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

### CONTAMINATION

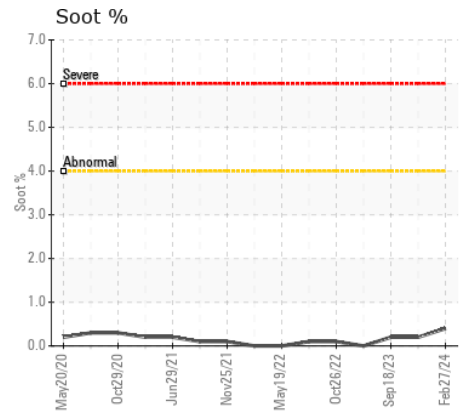
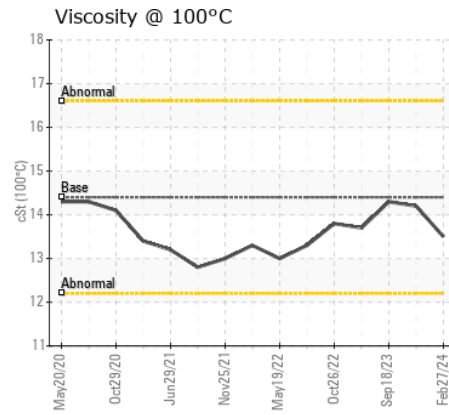
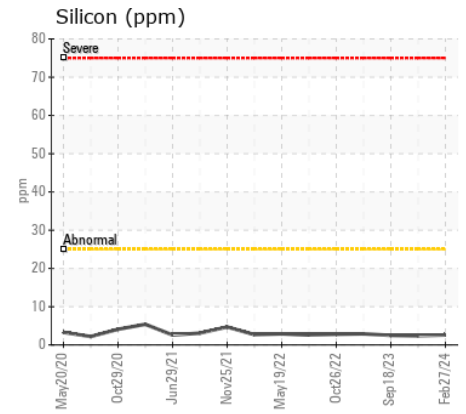
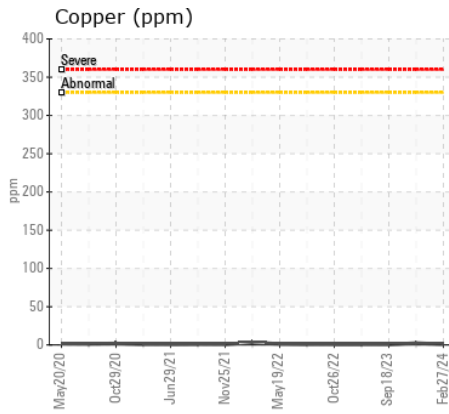
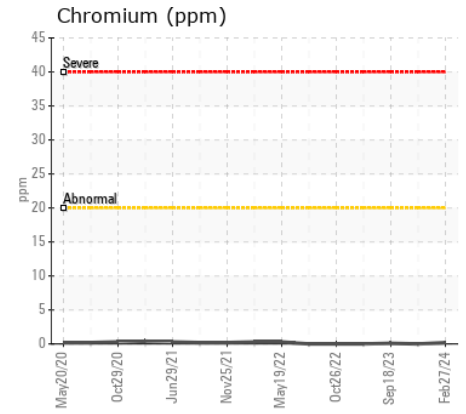
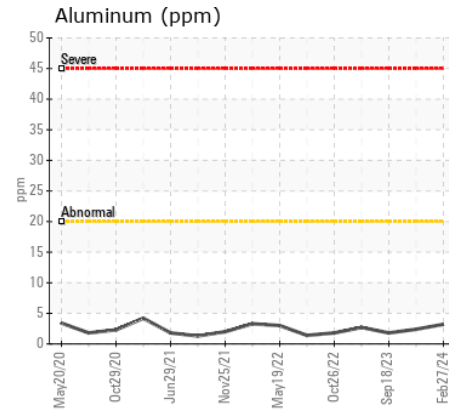
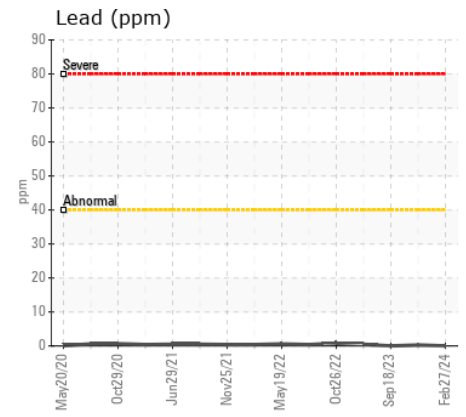
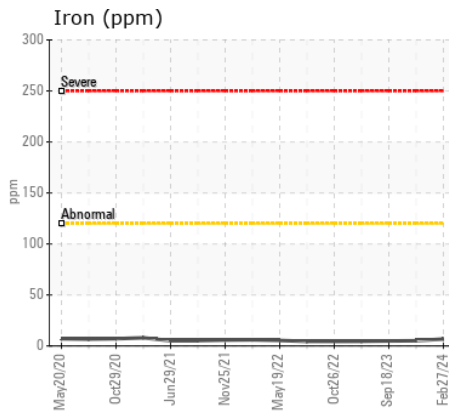
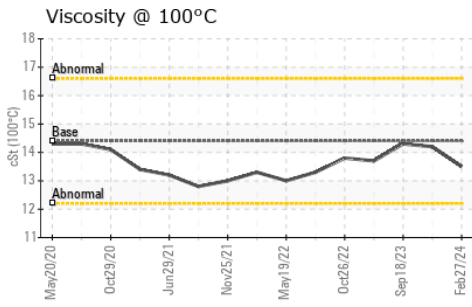
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>3</b>	2	2
Potassium	ppm	ASTM D5185(m)	>20	<b>6</b>	5	6
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>0.4</b>	0.2	0.2
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.6</b>	8.6	8.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>22.5</b>	21.6	21.6
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>3</b>	2	3
Boron	ppm	ASTM D5185(m)	250	<b>108</b>	108	95
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)	100	<b>3</b>	7	2
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	450	<b>24</b>	19	30
Calcium	ppm	ASTM D5185(m)	3000	<b>2104</b>	2093	2118
Phosphorus	ppm	ASTM D5185(m)	1150	<b>927</b>	913	1001
Zinc	ppm	ASTM D5185(m)	1350	<b>1108</b>	1140	1131
Sulfur	ppm	ASTM D5185(m)	4250	<b>2978</b>	2868	2837
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>16.5</b>	16.3	16.3
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	<b>13.5</b>	14.2	14.3



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0113251  
**Lab Number** : 02618574  
**Unique Number** : 5735684  
**Test Package** : MOB 1

**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.