

Area  
**GFL216**  
Machine Id  
**7840**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 40 (27 GAL)**

**RECOMMENDATION**

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0110261</b>	GFL0101398	GFL0093778
Sample Date		Client Info		<b>10 Feb 2024</b>	30 Nov 2023	07 Sep 2023
Machine Age	hrs	Client Info		<b>313288</b>	0	302730
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>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>SEVERE</b>	ATTENTION	ATTENTION

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>75	<b>36</b>	30	33
Chromium	ppm	ASTM D5185(m)	>5	<b>2</b>	2	1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>15	<b>4</b>	3	4
Lead	ppm	ASTM D5185(m)	>25	<b>1</b>	1	1
Copper	ppm	ASTM D5185(m)	>100	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

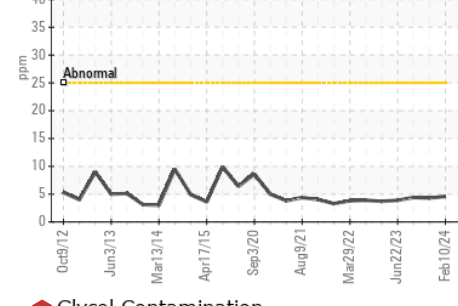
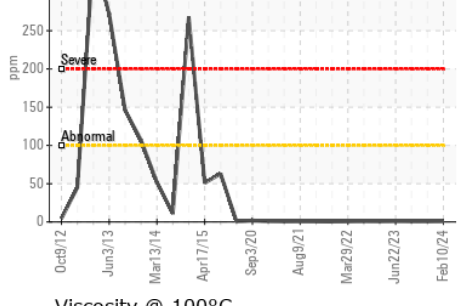
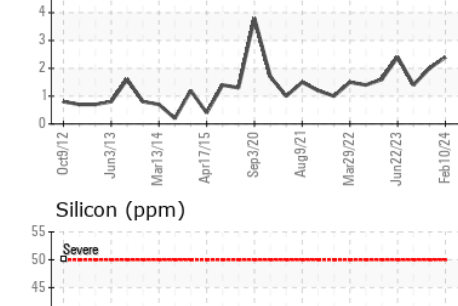
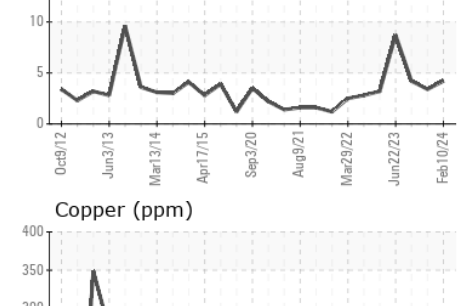
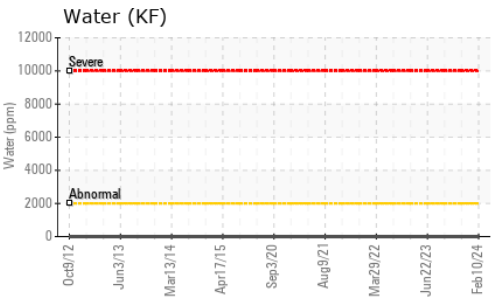
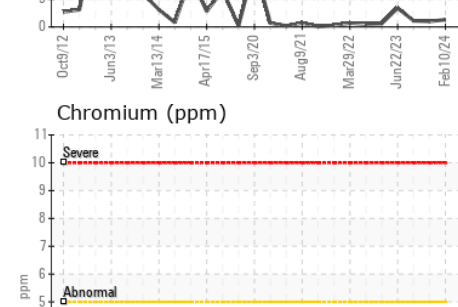
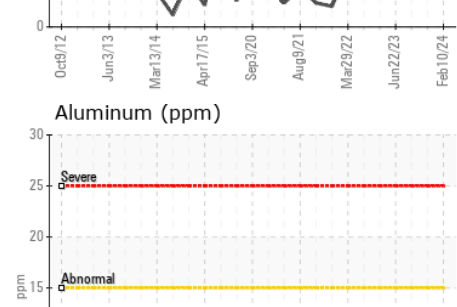
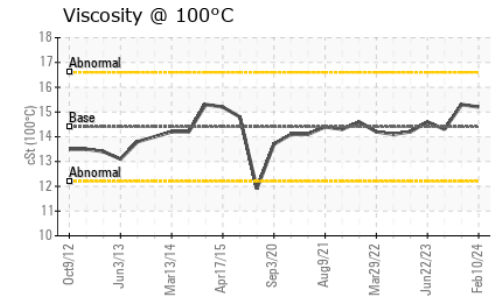
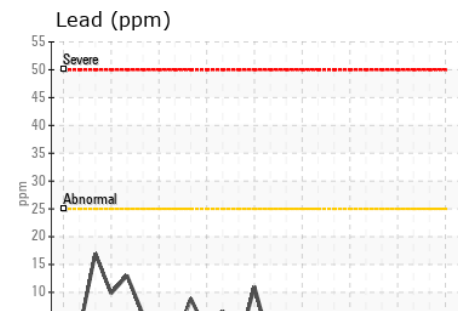
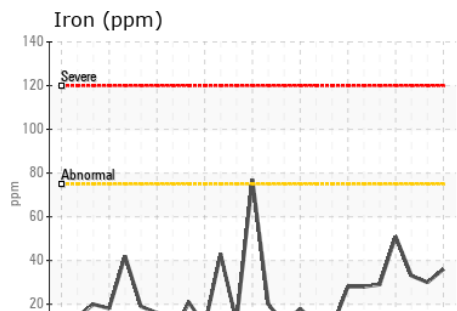
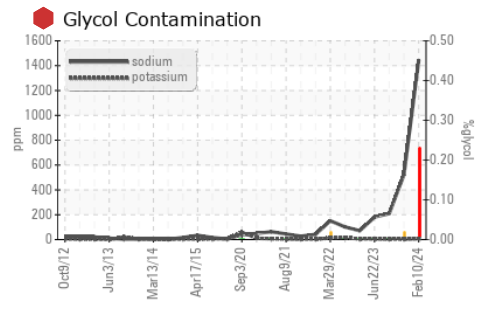
Test for glycol is positive. There is a high concentration of glycol present in the oil. There is a moderate concentration of water present in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>5</b>	4	4
Potassium	ppm	ASTM D5185(m)	>20	<b>7</b>	4	4
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water	%	ASTM D6304*	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	ASTM D7922*		<b>0.231</b>	0.018	0.0
Soot %	%	ASTM D7844*	>6	<b>1.2</b>	3	0.1
Nitration	Abs/cm	ASTM D7624*	>20	<b>14.0</b>	11.0	8.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>22.0</b>	25.9	20.1
Emulsified Water	scalar	Visual*	>0.2	<b>.2%</b>	NEG	NEG

**FLUID CONDITION**

The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)	>216	<b>1444</b>	522	209
Boron	ppm	ASTM D5185(m)	250	<b>7</b>	4	5
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)	100	<b>63</b>	65	66
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	450	<b>978</b>	1023	1073
Calcium	ppm	ASTM D5185(m)	3000	<b>1057</b>	1125	1147
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1019</b>	1017	1127
Zinc	ppm	ASTM D5185(m)	1350	<b>1186</b>	1252	1301
Sulfur	ppm	ASTM D5185(m)	4250	<b>2693</b>	2565	2688
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>16.1</b>	15.8	15.8
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	<b>15.2</b>	15.3	14.3



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0110261  
**Lab Number** : 02617578  
**Unique Number** : 5734688  
**Test Package** : MOB 1 ( Additional Tests: Glycol, KF )

**GFL Environmental - 252 - GTA Hauling**  
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 Contact: Amanda Cipollone  
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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.

T:  
 F: