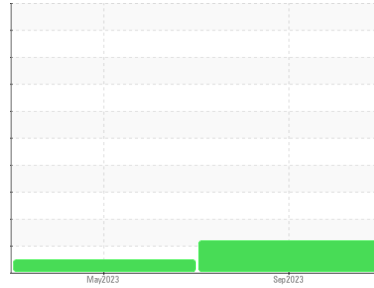




# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id  
**219004**

Component  
**Diesel Engine**

Fluid  
**DIESEL ENGINE OIL SAE 40 (--- GAL)**

## DIAGNOSIS

### Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

Light fuel dilution occurring.

### Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0094204</b>	GFL0082009	---
Sample Date	Client Info	<b>13 Sep 2023</b>	01 May 2023	---
Machine Age	hrs	<b>2257</b>	2257	---
Oil Age	hrs	<b>0</b>	0	---
Oil Changed	Client Info	<b>Changed</b>	Changed	---
Sample Status		<b>ABNORMAL</b>	NORMAL	---

## CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	<b>NEG</b>	NEG	---

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >100	<b>78</b>	36	---
Chromium	ppm	ASTM D5185(m) >20	<b>1</b>	<1	---
Nickel	ppm	ASTM D5185(m) >4	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185(m)	<b>0</b>	<1	---
Silver	ppm	ASTM D5185(m) >3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185(m) >20	<b>9</b>	6	---
Lead	ppm	ASTM D5185(m) >40	<b>0</b>	0	---
Copper	ppm	ASTM D5185(m) >330	<b>2</b>	2	---
Tin	ppm	ASTM D5185(m) >15	<b>0</b>	0	---
Antimony	ppm	ASTM D5185(m)	<b>0</b>	0	---
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	---
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	0	---
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	0	---

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m) 250	<b>2</b>	10	---
Barium	ppm	ASTM D5185(m) 10	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185(m) 100	<b>59</b>	58	---
Manganese	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185(m) 450	<b>985</b>	907	---
Calcium	ppm	ASTM D5185(m) 3000	<b>1034</b>	1070	---
Phosphorus	ppm	ASTM D5185(m) 1150	<b>1086</b>	1061	---
Zinc	ppm	ASTM D5185(m) 1350	<b>1202</b>	1136	---
Sulfur	ppm	ASTM D5185(m) 4250	<b>2746</b>	2604	---
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	---

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >25	<b>8</b>	5	---
Sodium	ppm	ASTM D5185(m) >216	<b>2</b>	1	---
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	<1	---
Fuel	%	ASTM D7593* >5	<b>▲ 2</b>	<1.0	---

## INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844* >3	<b>0.2</b>	0.1	---
Nitration	Abs/cm	ASTM D7624* >20	<b>8.2</b>	9.6	---
Sulfation	Abs/.1mm	ASTM D7415* >30	<b>19.1</b>	18.9	---

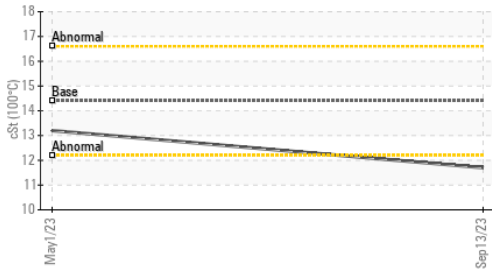
## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414* >25	<b>15.3</b>	16.3	---

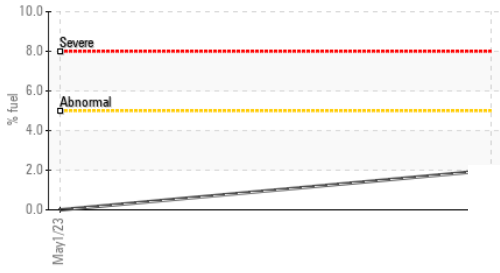


# OIL ANALYSIS REPORT

▲ Viscosity @ 100°C



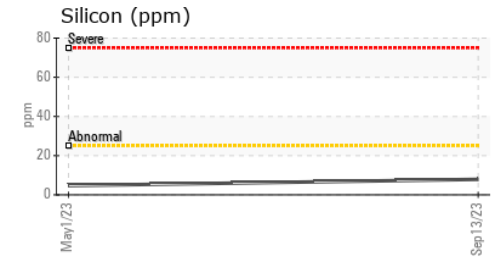
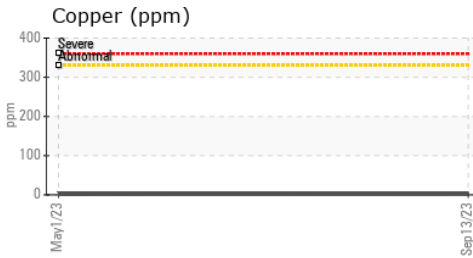
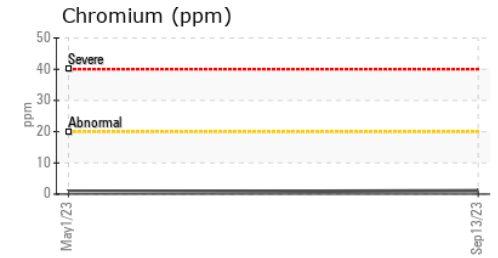
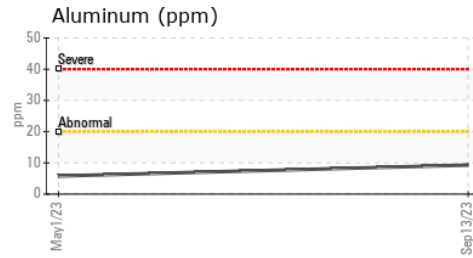
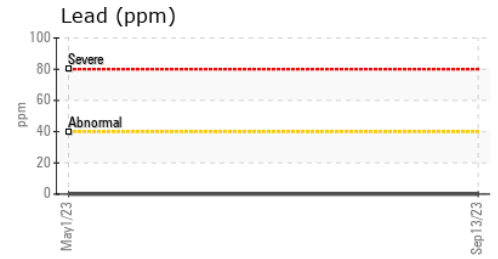
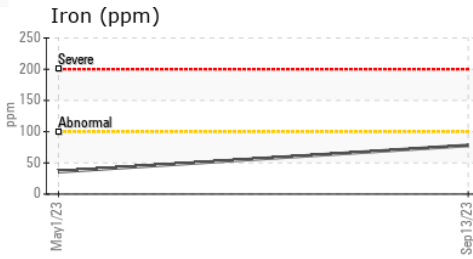
▲ Fuel Dilution



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
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	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---
Free Water	scalar	Visual*		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	▲ 11.7	13.2	---

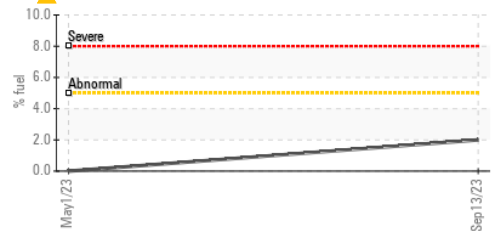
### GRAPHS



▲ Viscosity @ 100°C



▲ Fuel Dilution



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0094204  
**Lab Number** : 02583100  
**Unique Number** : 5644165  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel, Visual )

**GFL Environmental - 217 - Aurora**  
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 AURORA, ON  
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 T: (647)286-7468  
 F: (905)713-2445

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.