



# OIL ANALYSIS REPORT

Sample Rating Trend

**WEAR**



Machine Id  
**OR352**

Component  
**Diesel Engine**

Fluid  
**DIESEL ENGINE OIL SAE 40 (40 LTR)**



## DIAGNOSIS

### ▲ Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm.

### ▲ Wear

Iron ppm levels are abnormal. Cylinder, crank, or cam shaft wear is indicated.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The oil is no longer serviceable as a result of the abnormal and/or severe wear.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0092307</b>	---	---
Sample Date	Client Info	<b>09 Feb 2024</b>	---	---
Machine Age	hrs	Client Info	<b>14957</b>	---
Oil Age	hrs	Client Info	<b>14957</b>	---
Oil Changed	Client Info	<b>Changed</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	---
Water	WC Method	>0.2	<b>NEG</b>	---

## WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*		<b>0</b>	---
Iron	ppm	ASTM D5185(m)	>100	<b>▲ 104</b>
Chromium	ppm	ASTM D5185(m)	>20	<b>1</b>
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>
Titanium	ppm	ASTM D5185(m)		<b>0</b>
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>
Lead	ppm	ASTM D5185(m)	>40	<b>15</b>
Copper	ppm	ASTM D5185(m)	>330	<b>574</b>
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>
Antimony	ppm	ASTM D5185(m)		<b>0</b>
Vanadium	ppm	ASTM D5185(m)		<b>0</b>
Beryllium	ppm	ASTM D5185(m)		<b>0</b>
Cadmium	ppm	ASTM D5185(m)		<b>0</b>

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	250	<b>7</b>
Barium	ppm	ASTM D5185(m)	10	<b>0</b>
Molybdenum	ppm	ASTM D5185(m)	100	<b>62</b>
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>
Magnesium	ppm	ASTM D5185(m)	450	<b>929</b>
Calcium	ppm	ASTM D5185(m)	3000	<b>1148</b>
Phosphorus	ppm	ASTM D5185(m)	1150	<b>982</b>
Zinc	ppm	ASTM D5185(m)	1350	<b>1157</b>
Sulfur	ppm	ASTM D5185(m)	4250	<b>2458</b>
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	<b>6</b>
Sodium	ppm	ASTM D5185(m)	>216	<b>88</b>
Potassium	ppm	ASTM D5185(m)	>20	<b>25</b>
Glycol	%	ASTM D7922*		<b>0.0</b>

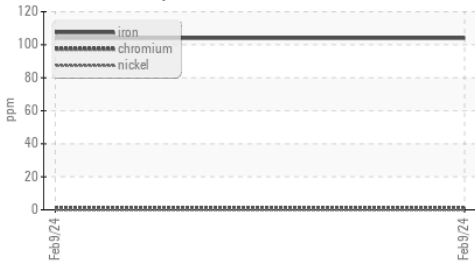
## INFRA-RED

method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	<b>0.8</b>
Nitration	Abs/cm	ASTM D7624*	>20	<b>7.4</b>
Sulfation	Abs.1mm	ASTM D7415*	>30	<b>20.6</b>

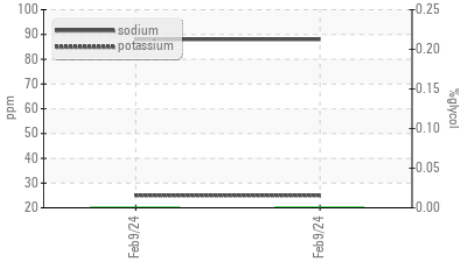


# OIL ANALYSIS REPORT

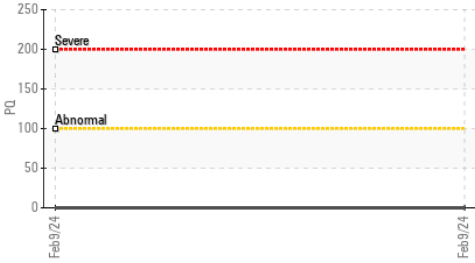
### ▲ Ferrous Alloys



### Glycol Contamination



### PQ



### PQ



### FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs./1mm ASTM D7414*	>25	14.4	---	---

### VISUAL

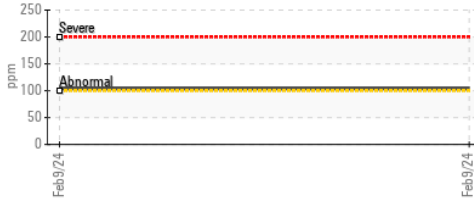
method	limit/base	current	history1	history2	
White Metal	scalar Visual*	NONE	VLITE	---	---
Yellow Metal	scalar Visual*	NONE	NONE	---	---
Precipitate	scalar Visual*	NONE	NONE	---	---
Silt	scalar Visual*	NONE	NONE	---	---
Debris	scalar Visual*	NONE	NONE	---	---
Sand/Dirt	scalar Visual*	NONE	NONE	---	---
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)	14.4	14.0	---	---

### GRAPHS

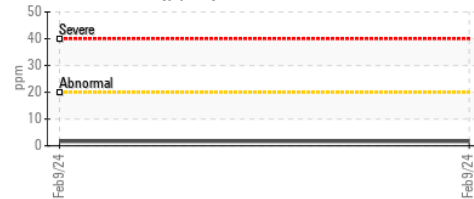
#### ▲ Iron (ppm)



#### Lead (ppm)



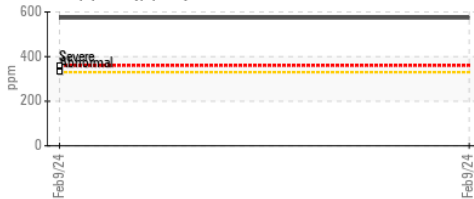
#### Aluminum (ppm)



#### Chromium (ppm)



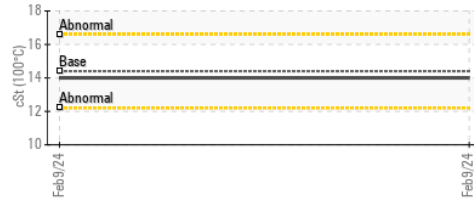
#### Copper (ppm)



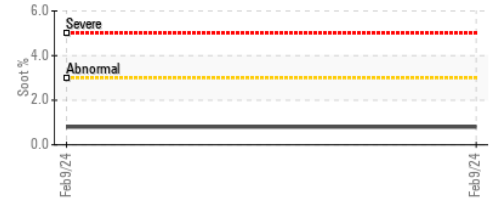
#### Silicon (ppm)



#### Viscosity @ 100°C



#### Soot %



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0092307  
**Lab Number** : 02615209  
**Unique Number** : 5724304  
**Test Package** : MOB 1 ( Additional Tests: Glycol, PQ, Visual )

**GFL Environmental - 720 - Lafleche - Landfill**  
 17125 Lafleche Road,  
 Moose Creek, ON  
 CA K0C 1W0  
 Contact: Charles Bergeron  
 cbergeron@gflenv.com  
 T: (613)538-4853  
 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.*