



# PROBLEM SUMMARY



Machine Id  
**12517**  
Component  
**Diesel Engine**  
Fluid  
**NOT GIVEN (--- GAL)**

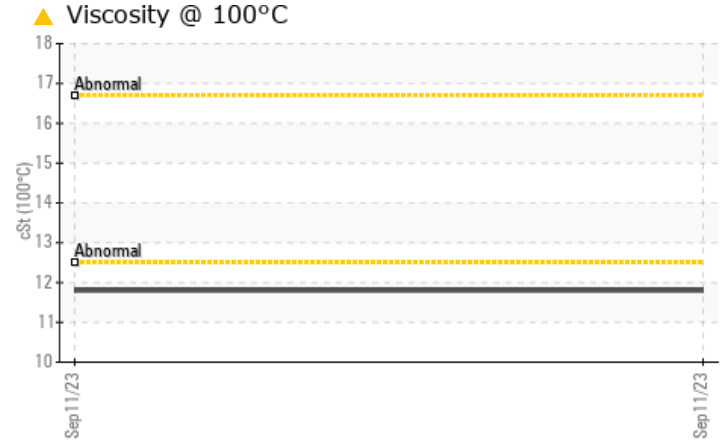
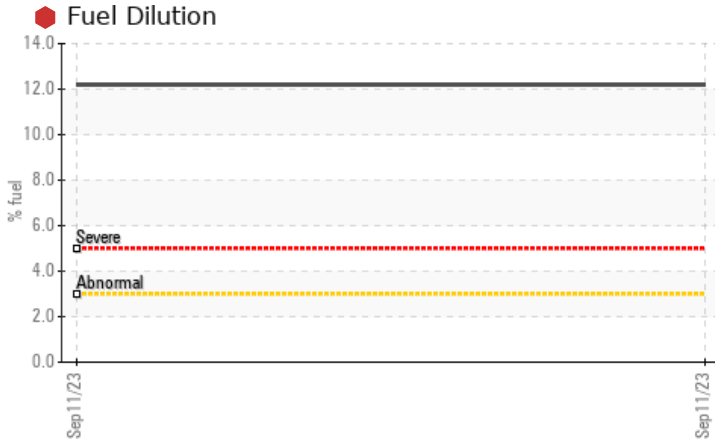
## Sample Rating Trend



FUEL



## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

## PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	---	---
Fuel	%	ASTM D3524	>3.0	12.2	---	---
Visc @ 100°C	cSt	ASTM D445		11.8	---	---

Customer Id: GFL112  
Sample No.: GFL0092332  
Lab Number: 05947720  
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Wes Davis +1 905-569-8600 x223  
[wesd@wearcheck.ca](mailto:wesd@wearcheck.ca)

To change component or sample information:  
Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Information Required	---	---	?	Please specify the brand, type, and viscosity of the oil on your next sample. Please specify the component make and model with your next sample.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

## HISTORICAL DIAGNOSIS



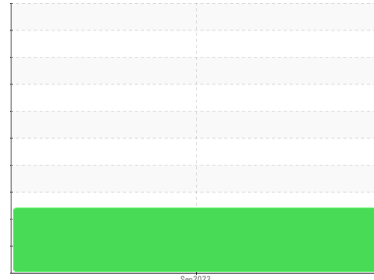
# OIL ANALYSIS REPORT

Sample Rating Trend

FUEL



Machine Id  
**12517**  
Component  
**Diesel Engine**  
Fluid  
**NOT GIVEN (--- GAL)**



## DIAGNOSIS

### Recommendation

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0092332</b>	---	---
Sample Date	Client Info	<b>11 Sep 2023</b>	---	---
Machine Age	hrs Client Info	<b>0</b>	---	---
Oil Age	hrs Client Info	<b>0</b>	---	---
Oil Changed	Client Info	<b>N/A</b>	---	---
Sample Status		<b>SEVERE</b>	---	---

## CONTAMINATION

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

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >120	<b>17</b>	---	---
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	---	---
Nickel	ppm ASTM D5185m >5	<b>0</b>	---	---
Titanium	ppm ASTM D5185m >2	<b>0</b>	---	---
Silver	ppm ASTM D5185m >2	<b>0</b>	---	---
Aluminum	ppm ASTM D5185m >20	<b>2</b>	---	---
Lead	ppm ASTM D5185m >40	<b>&lt;1</b>	---	---
Copper	ppm ASTM D5185m >330	<b>0</b>	---	---
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	---	---
Vanadium	ppm ASTM D5185m	<b>0</b>	---	---
Cadmium	ppm ASTM D5185m	<b>0</b>	---	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	<b>4</b>	---	---
Barium	ppm ASTM D5185m	<b>0</b>	---	---
Molybdenum	ppm ASTM D5185m	<b>52</b>	---	---
Manganese	ppm ASTM D5185m	<b>&lt;1</b>	---	---
Magnesium	ppm ASTM D5185m	<b>815</b>	---	---
Calcium	ppm ASTM D5185m	<b>973</b>	---	---
Phosphorus	ppm ASTM D5185m	<b>875</b>	---	---
Zinc	ppm ASTM D5185m	<b>1080</b>	---	---
Sulfur	ppm ASTM D5185m	<b>3069</b>	---	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>3</b>	---	---
Sodium	ppm ASTM D5185m	<b>10</b>	---	---
Potassium	ppm ASTM D5185m >20	<b>2</b>	---	---
Fuel	% ASTM D3524 >3.0	<b>12.2</b>	---	---

## INFRA-RED

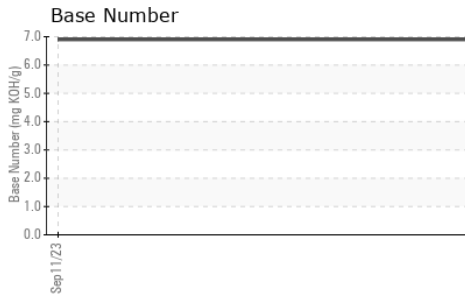
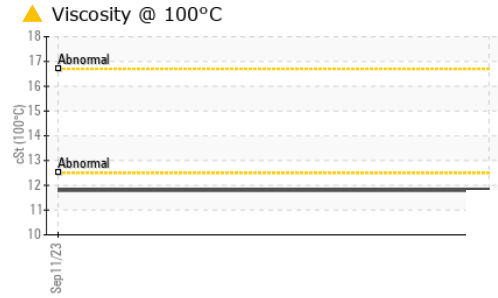
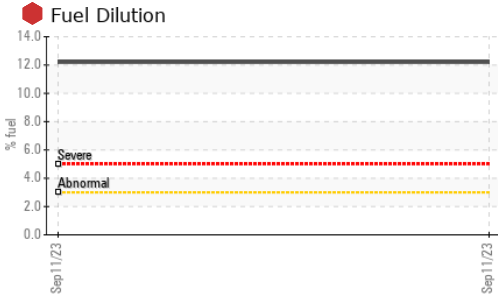
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >4	<b>0.4</b>	---	---
Nitration	Abs/cm *ASTM D7624 >20	<b>11.0</b>	---	---
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>20.1</b>	---	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>19.0</b>	---	---
Base Number (BN)	mg KOH/g ASTM D2896	<b>6.9</b>	---	---



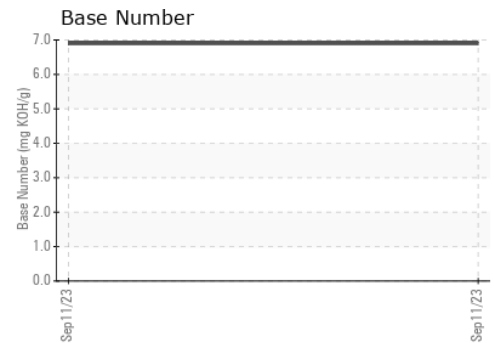
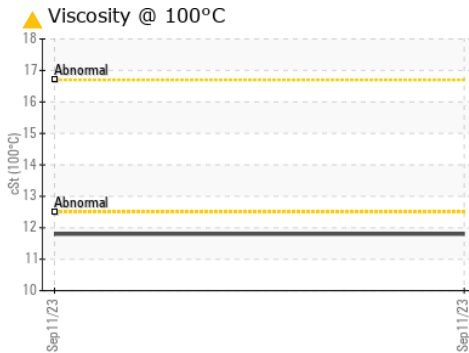
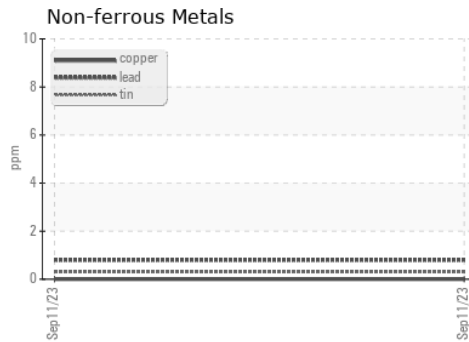
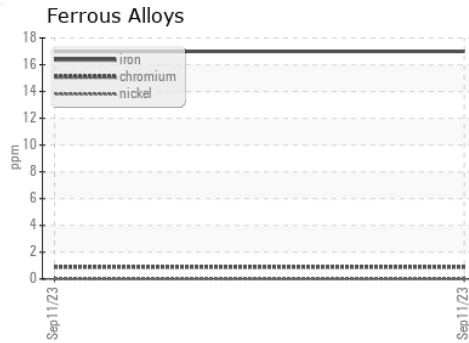
# OIL ANALYSIS REPORT



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 D445	▲ 11.8	---	---

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0092332 **Received** : 12 Sep 2023  
**Lab Number** : 05947720 **Diagnosed** : 14 Sep 2023  
**Unique Number** : 10643679 **Diagnostician** : Wes Davis  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 112 - New Bern**  
 705 Airport Road  
 New Bern, NC  
 US 28560  
 Contact: Marquis Williams  
 marquis.williams@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:  
F: