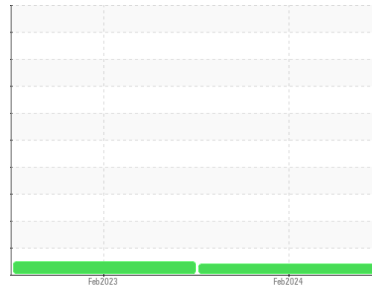




# OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id  
**521057-SW7104 FREIGHTLINER CASCADIA 125**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

### ▲ Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0103989</b>	GFL0065815	---
Sample Date	Client Info		<b>06 Feb 2024</b>	17 Feb 2023	---
Machine Age	mls	Client Info	<b>0</b>	364786	---
Oil Age	mls	Client Info	<b>0</b>	0	---
Oil Changed	Client Info		<b>N/A</b>	N/A	---
Sample Status			<b>ATTENTION</b>	NORMAL	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol	WC Method		<b>NEG</b>	NEG	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >80	<b>36</b>	8	---
Chromium	ppm	ASTM D5185m >5	<b>&lt;1</b>	0	---
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	---
Silver	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	---
Aluminum	ppm	ASTM D5185m >30	<b>18</b>	2	---
Lead	ppm	ASTM D5185m >30	<b>&lt;1</b>	<1	---
Copper	ppm	ASTM D5185m >150	<b>12</b>	8	---
Tin	ppm	ASTM D5185m >5	<b>&lt;1</b>	0	---
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>37</b>	0	---
Barium	ppm	ASTM D5185m 0	<b>1</b>	0	---
Molybdenum	ppm	ASTM D5185m 60	<b>2</b>	59	---
Manganese	ppm	ASTM D5185m 0	<b>1</b>	<1	---
Magnesium	ppm	ASTM D5185m 1010	<b>764</b>	876	---
Calcium	ppm	ASTM D5185m 1070	<b>1371</b>	1298	---
Phosphorus	ppm	ASTM D5185m 1150	<b>702</b>	1014	---
Zinc	ppm	ASTM D5185m 1270	<b>824</b>	1309	---
Sulfur	ppm	ASTM D5185m 2060	<b>2832</b>	4121	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	<b>14</b>	3	---
Sodium	ppm	ASTM D5185m	<b>2</b>	0	---
Potassium	ppm	ASTM D5185m >20	<b>67</b>	2	---
Fuel	%	ASTM D3524 >5	<b>1.0</b>	<1.0	---

## INFRA-RED

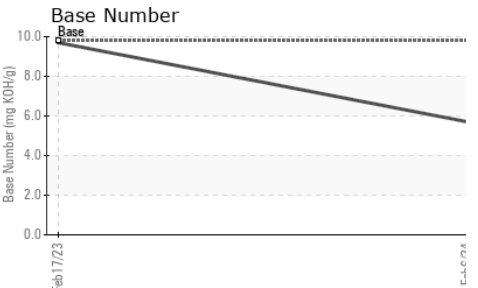
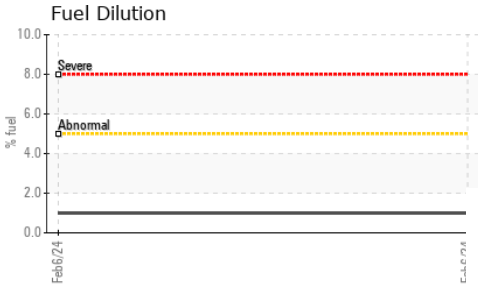
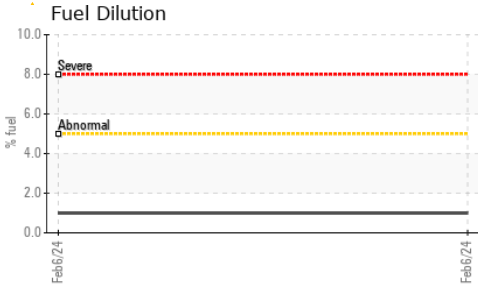
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.1</b>	0.2	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.5</b>	7.7	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>21.1</b>	19.4	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.9</b>	14.8	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>5.7</b>	9.7	---



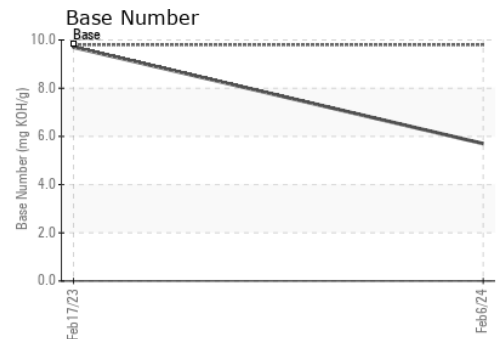
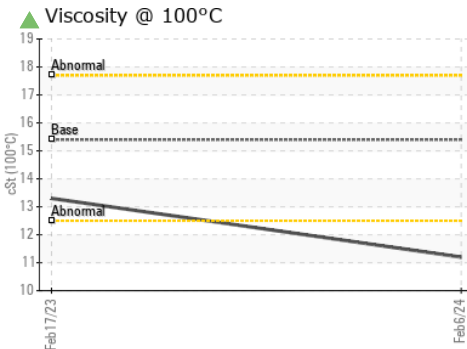
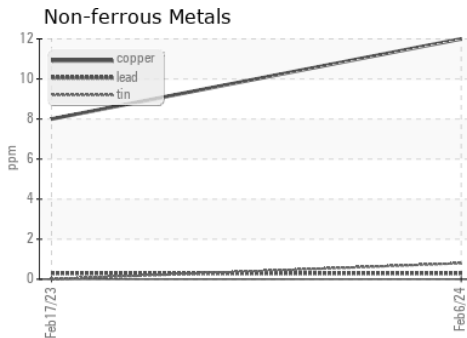
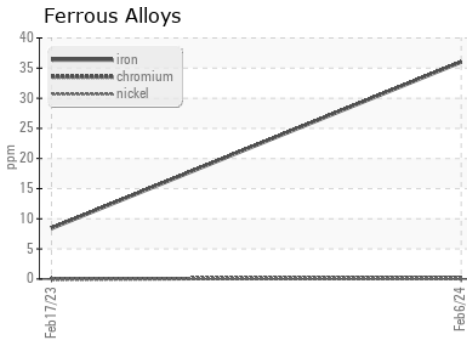
# OIL ANALYSIS REPORT



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	15.4	▲ 11.2	13.3

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0103989 **Received** : 19 Feb 2024  
**Lab Number** : 06093550 **Tested** : 22 Feb 2024  
**Unique Number** : 10886403 **Diagnosed** : 22 Feb 2024 - Jonathan Hester  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 980 - Northside Hauling**  
 1820 Candle Ridge Park Dr  
 Houston, TX  
 US 77073  
 Contact: Edwin Collins  
 ecolins@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)