



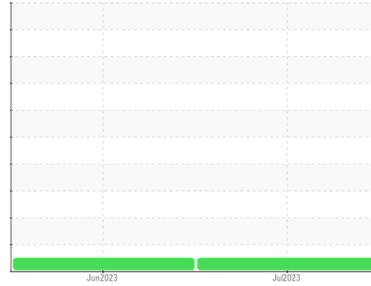
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**FREIGHTLINER 712043**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a new component breaking in.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0076908</b>	GFL0076904	---
Sample Date	Client Info		<b>31 Jul 2023</b>	01 Jun 2023	---
Machine Age	mls	Client Info	<b>29515</b>	26741	---
Oil Age	mls	Client Info	<b>26741</b>	0	---
Oil Changed	Client Info		<b>Changed</b>	Changed	---
Sample Status			<b>NORMAL</b>	NORMAL	---

## CONTAMINATION

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

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >80	<b>7</b>	14	---
Chromium	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	---
Nickel	ppm	ASTM D5185m >2	<b>0</b>	<1	---
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	---
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m >30	<b>1</b>	2	---
Lead	ppm	ASTM D5185m >30	<b>0</b>	0	---
Copper	ppm	ASTM D5185m >150	<b>&lt;1</b>	<1	---
Tin	ppm	ASTM D5185m >5	<b>0</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>8</b>	5	---
Barium	ppm	ASTM D5185m 0	<b>0</b>	2	---
Molybdenum	ppm	ASTM D5185m 60	<b>56</b>	56	---
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m 1010	<b>894</b>	735	---
Calcium	ppm	ASTM D5185m 1070	<b>1185</b>	1378	---
Phosphorus	ppm	ASTM D5185m 1150	<b>987</b>	1032	---
Zinc	ppm	ASTM D5185m 1270	<b>1212</b>	1237	---
Sulfur	ppm	ASTM D5185m 2060	<b>3607</b>	3605	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	<b>3</b>	3	---
Sodium	ppm	ASTM D5185m	<b>1</b>	0	---
Potassium	ppm	ASTM D5185m >20	<b>3</b>	5	---

## INFRA-RED

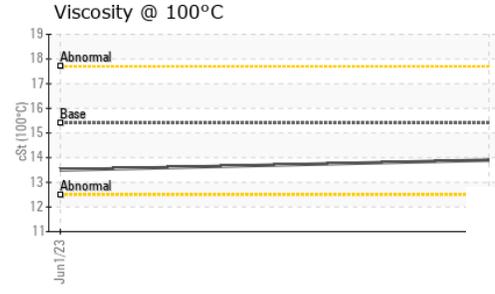
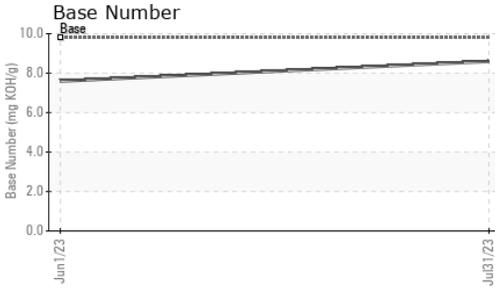
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.3</b>	0.4	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.8</b>	7.9	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.6</b>	19.6	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.1</b>	16.0	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.6</b>	7.6	---



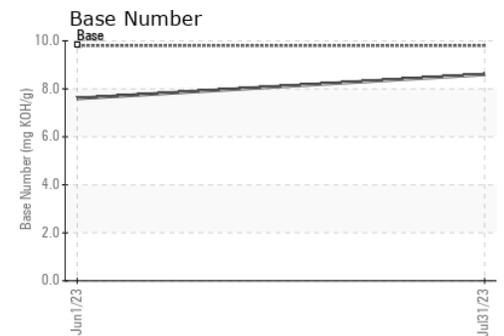
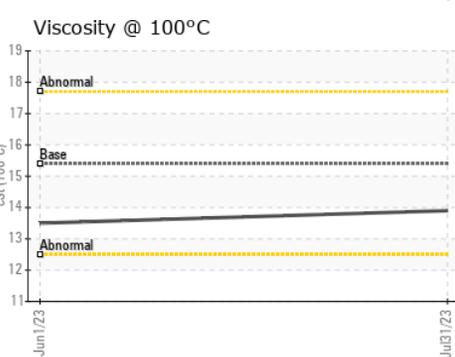
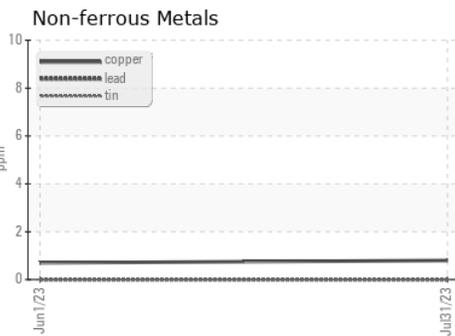
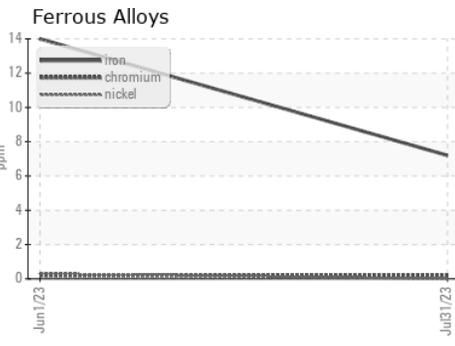
# OIL ANALYSIS REPORT



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	<b>13.9</b>	13.5	---

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0076908 **Received** : 07 Aug 2023  
**Lab Number** : **05918112** **Diagnosed** : 08 Aug 2023  
**Unique Number** : 10590026 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 412 - Northern Michigan TS**  
 348 US-41  
 Negaunee, MI  
 US 49866  
 Contact: Service Manager

Certificate L2367  
 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)

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F: