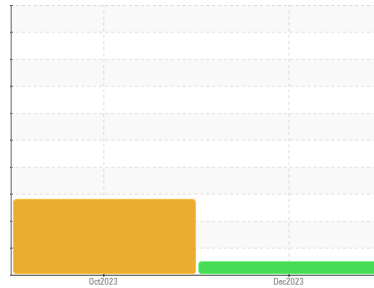




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**222052-670474**

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 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>GFL0105160</b>	GFL0090163	---
Sample Date	Client Info		<b>20 Dec 2023</b>	05 Oct 2023	---
Machine Age	mls	Client Info	<b>183665</b>	175968	---
Oil Age	mls	Client Info	<b>5000</b>	6000	---
Oil Changed	Client Info		<b>Not Chngd</b>	Changed	---
Sample Status			<b>NORMAL</b>	SEVERE	---

## 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 >100	<b>0</b>	26	---
Chromium	ppm	ASTM D5185m >20	<b>0</b>	<1	---
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	---
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m >25	<b>&lt;1</b>	8	---
Lead	ppm	ASTM D5185m >40	<b>0</b>	<1	---
Copper	ppm	ASTM D5185m >330	<b>0</b>	3	---
Tin	ppm	ASTM D5185m >15	<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>&lt;1</b>	5	---
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m 60	<b>53</b>	50	---
Manganese	ppm	ASTM D5185m 0	<b>0</b>	<1	---
Magnesium	ppm	ASTM D5185m 1010	<b>934</b>	769	---
Calcium	ppm	ASTM D5185m 1070	<b>983</b>	846	---
Phosphorus	ppm	ASTM D5185m 1150	<b>1047</b>	843	---
Zinc	ppm	ASTM D5185m 1270	<b>1238</b>	1057	---
Sulfur	ppm	ASTM D5185m 2060	<b>3139</b>	2878	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>4</b>	8	---
Sodium	ppm	ASTM D5185m	<b>2</b>	39	---
Potassium	ppm	ASTM D5185m >20	<b>0</b>	6	---
Fuel	%	ASTM D3524 >5	<b>0.3</b>	11.3	---

## INFRA-RED

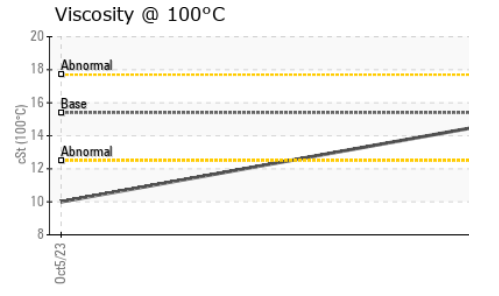
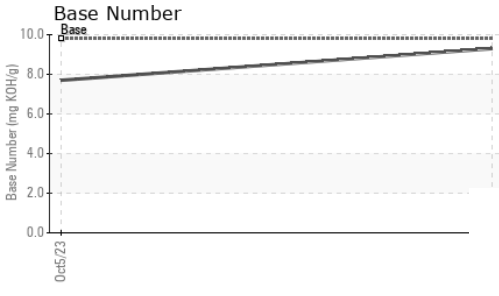
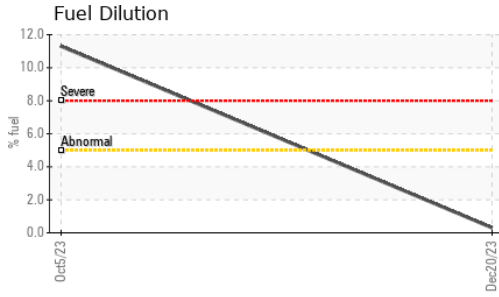
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0</b>	0.9	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>4.1</b>	7.7	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>17.5</b>	20.2	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>12.8</b>	15.6	---
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>9.3</b>	7.7	---



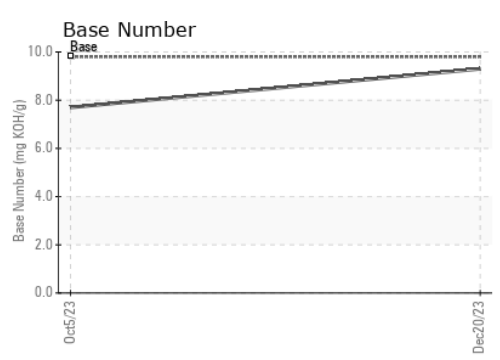
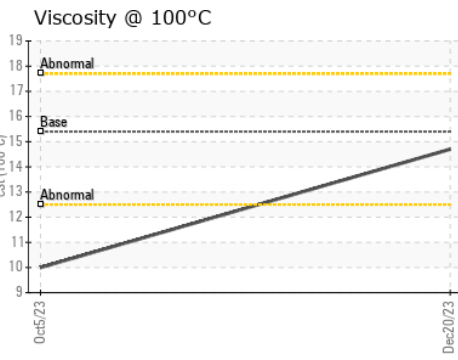
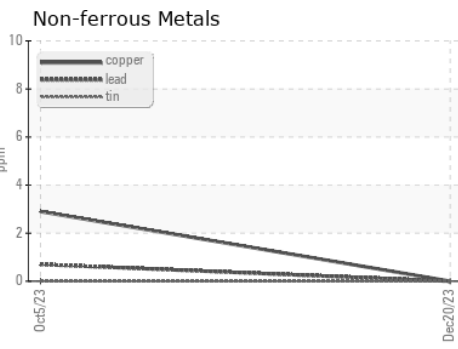
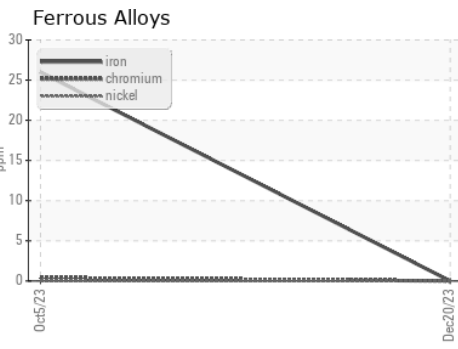
# OIL ANALYSIS REPORT



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	14.7	10.0

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0105160 **Received** : 22 Dec 2023  
**Lab Number** : 06042863 **Diagnosed** : 27 Dec 2023  
**Unique Number** : 10803471 **Diagnostician** : Wes Davis  
**Test Package** : FLEET ( Additional Tests: PercentFuel )

**GFL Environmental - 821 - Ozarks Hauling**  
 33924 Olath Drive  
 Lebanon, MO  
 US 65536  
 Contact: Landen Johnson  
 landen.johnson@gflenv.com  
 T: (417)664-0010  
 F:

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)