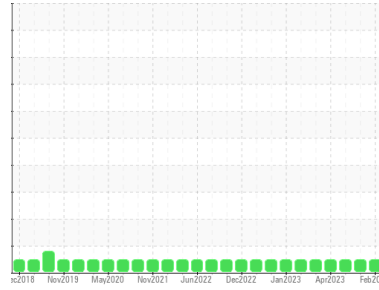




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**749008-310062**

Component  
**Diesel Engine**

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

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### 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>GFL0106767</b>	GFL0092103	GFL0084635
Sample Date	Client Info	<b>27 Feb 2024</b>	15 Dec 2023	18 Oct 2023
Machine Age	hrs	<b>15865</b>	15244	119131
Oil Age	hrs	<b>600</b>	600	0
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

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

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	<b>9</b>	4	4
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	<1	0
Nickel	ppm ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm ASTM D5185m	<b>0</b>	0	0
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>2</b>	1	<1
Lead	ppm ASTM D5185m >40	<b>&lt;1</b>	1	<1
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	<1	<1
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	0	0
Vanadium	ppm ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>12</b>	13	10
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>47</b>	51	48
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	0	<1
Magnesium	ppm ASTM D5185m 1010	<b>497</b>	539	531
Calcium	ppm ASTM D5185m 1070	<b>1421</b>	1521	1488
Phosphorus	ppm ASTM D5185m 1150	<b>631</b>	686	630
Zinc	ppm ASTM D5185m 1270	<b>894</b>	955	871
Sulfur	ppm ASTM D5185m 2060	<b>2172</b>	2402	2184

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>4</b>	3	3
Sodium	ppm ASTM D5185m	<b>4</b>	5	7
Potassium	ppm ASTM D5185m >20	<b>&lt;1</b>	<1	2

## INFRA-RED

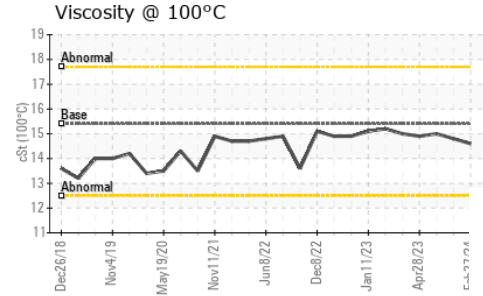
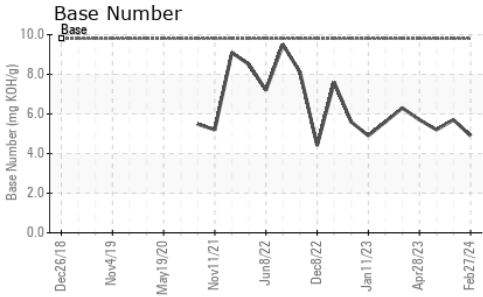
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0</b>	0	0
Nitration	Abs/cm *ASTM D7624 >20	<b>10.2</b>	10.0	9.7
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>19.6</b>	19.6	19.6

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>17.0</b>	17.3	17.0
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>4.9</b>	5.7	5.2



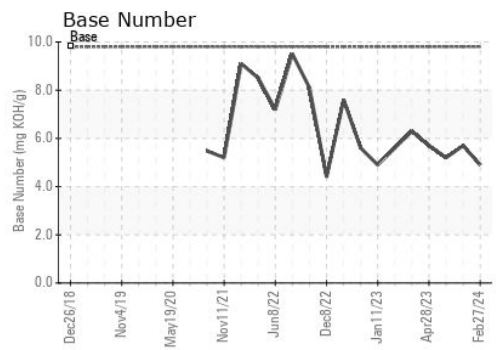
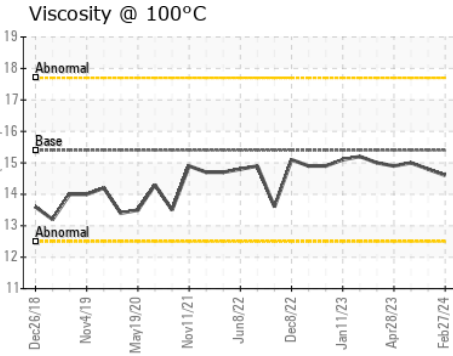
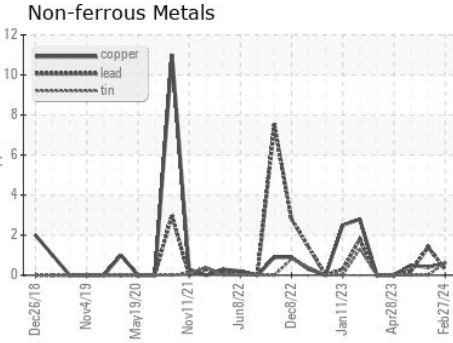
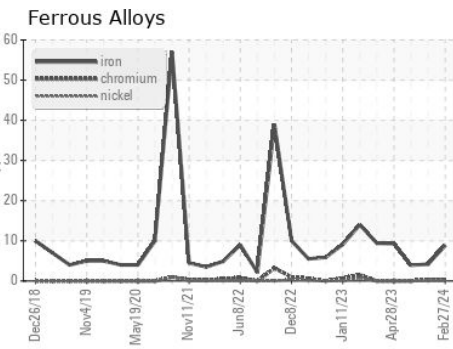
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.6</b>	14.8	15.0

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0106767  
**Lab Number** : **06105865**  
**Unique Number** : 10909362  
**Test Package** : FLEET  
**Received** : 01 Mar 2024  
**Tested** : 02 Mar 2024  
**Diagnosed** : 04 Mar 2024 - Don Baldrige

**GFL Environmental - 856 - Houston South**  
 8515 Highway 6 South  
 Houston, TX  
 US 77083  
 Contact: Jose Gonzalez  
 jgonzalez2@gflenv.com

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)