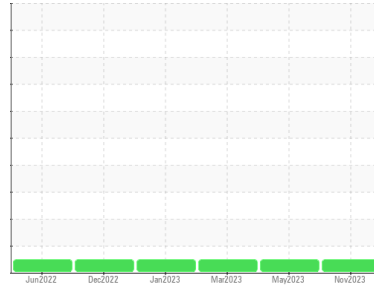




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**720063**

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>GFL0092017</b>	GFL0078162	GFL0073605
Sample Date	Client Info	<b>08 Nov 2023</b>	03 May 2023	16 Mar 2023
Machine Age	hrs	<b>7978</b>	6635	6258
Oil Age	hrs	<b>7978</b>	0	0
Oil Changed	Client Info	<b>Changed</b>	Not Changd	Not Changd
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
Glycol	WC Method	<b>NEG</b>	NEG	NEG

### WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	<b>24</b>	17	6
Chromium	ppm ASTM D5185m >20	<b>1</b>	1	<1
Nickel	ppm ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm ASTM D5185m	<b>0</b>	0	<1
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>6</b>	2	<1
Lead	ppm ASTM D5185m >40	<b>0</b>	0	<1
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	3	<1
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	0	<1
Vanadium	ppm ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

### ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>2</b>	2	2
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>58</b>	57	57
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	1
Magnesium	ppm ASTM D5185m 1010	<b>987</b>	941	905
Calcium	ppm ASTM D5185m 1070	<b>1038</b>	1027	1039
Phosphorus	ppm ASTM D5185m 1150	<b>1070</b>	1007	963
Zinc	ppm ASTM D5185m 1270	<b>1334</b>	1241	1203
Sulfur	ppm ASTM D5185m 2060	<b>3076</b>	3469	3377

### CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>6</b>	4	4
Sodium	ppm ASTM D5185m	<b>4</b>	4	4
Potassium	ppm ASTM D5185m >20	<b>1</b>	<1	1

### INFRA-RED

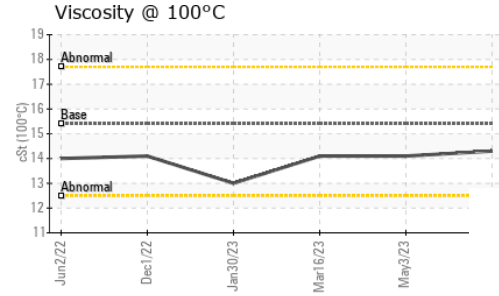
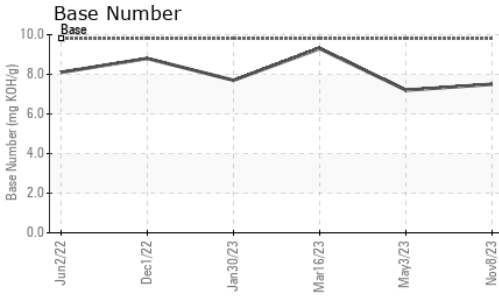
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>1.1</b>	0.7	0.3
Nitration	Abs/cm *ASTM D7624 >20	<b>11.1</b>	9.2	6.5
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>21.4</b>	18.0	18.3

### FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>17.7</b>	15.5	13.8
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.5</b>	7.2	9.3



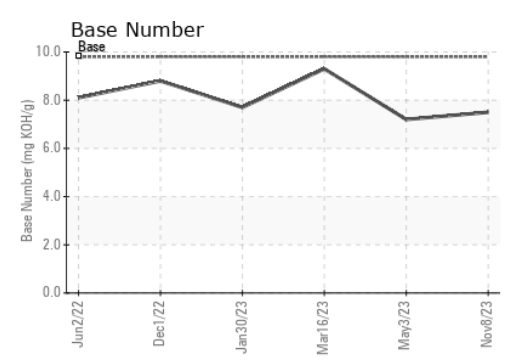
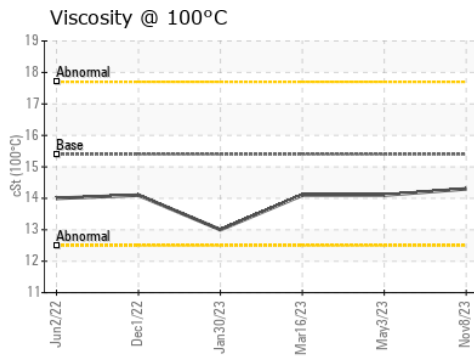
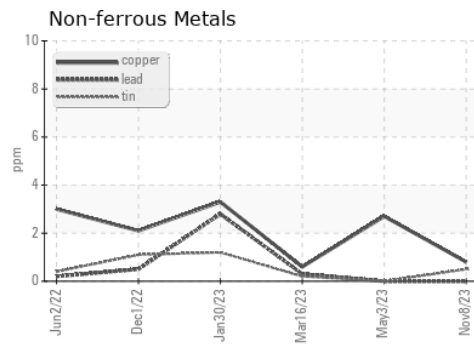
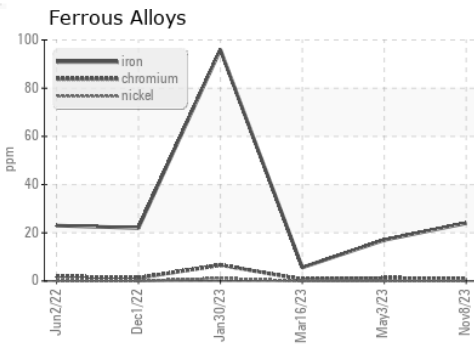
# OIL ANALYSIS REPORT



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>14.3</b>	14.1	14.1

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0092017 **Received** : 14 Nov 2023  
**Lab Number** : **06007506** **Diagnosed** : 15 Nov 2023  
**Unique Number** : 10741268 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 856 - Houston South**  
 8515 Highway 6 South  
 Houston, TX  
 US 77083  
 Contact: Apolinar Zacarias  
 pzacariascano@gflenv.com  
 T:  
 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)