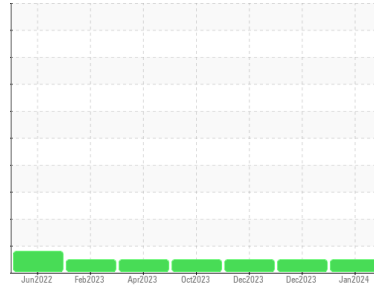




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**(41425UA)**  
Machine Id  
**820049**

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>GFL0098173</b>	GFL0098252	GFL0098203
Sample Date	Client Info	<b>12 Jan 2024</b>	13 Dec 2023	12 Dec 2023
Machine Age	hrs	<b>8700</b>	8524	8512
Oil Age	hrs	<b>8700</b>	8524	8512
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
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>47</b>	79	62
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	2	2
Nickel	ppm ASTM D5185m >4	<b>&lt;1</b>	1	<1
Titanium	ppm ASTM D5185m	<b>0</b>	<1	<1
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>11</b>	7	5
Lead	ppm ASTM D5185m >40	<b>&lt;1</b>	<1	<1
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	2	2
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	<1	<1

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>13</b>	13	15
Barium	ppm ASTM D5185m 0	<b>0</b>	12	12
Molybdenum	ppm ASTM D5185m 60	<b>55</b>	62	62
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	1	1
Magnesium	ppm ASTM D5185m 1010	<b>907</b>	926	910
Calcium	ppm ASTM D5185m 1070	<b>1087</b>	1137	1114
Phosphorus	ppm ASTM D5185m 1150	<b>1087</b>	995	989
Zinc	ppm ASTM D5185m 1270	<b>1256</b>	1237	1209
Sulfur	ppm ASTM D5185m 2060	<b>3153</b>	3318	3229

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>5</b>	6	5
Sodium	ppm ASTM D5185m	<b>2</b>	<1	<1
Potassium	ppm ASTM D5185m >20	<b>8</b>	5	4

## INFRA-RED

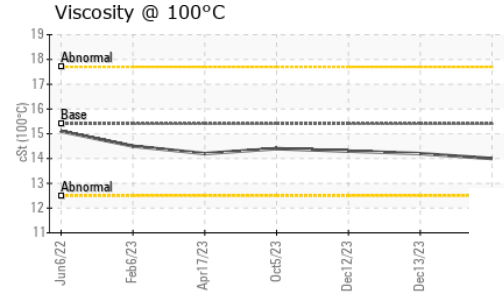
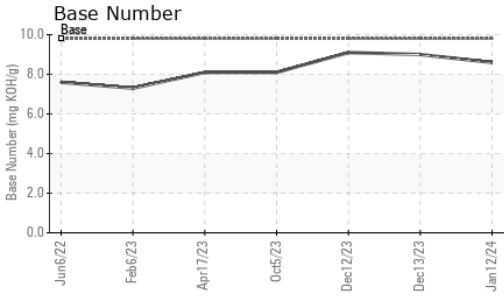
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.6</b>	1.1	1.1
Nitration	Abs/cm *ASTM D7624 >20	<b>6.4</b>	7.4	7.1
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>18.4</b>	19.8	19.4

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>13.5</b>	13.9	13.6
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.6</b>	9.0	9.1



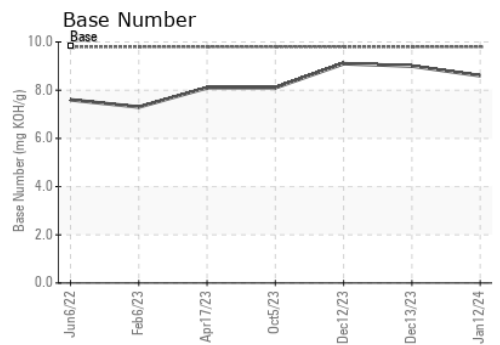
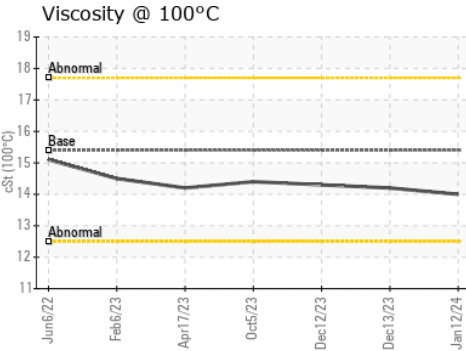
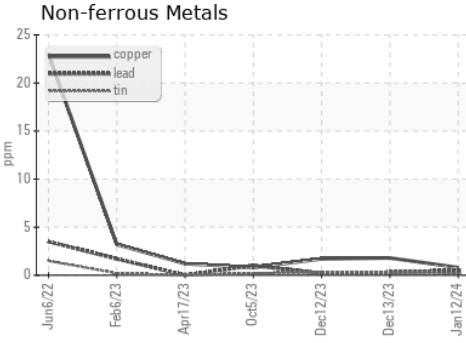
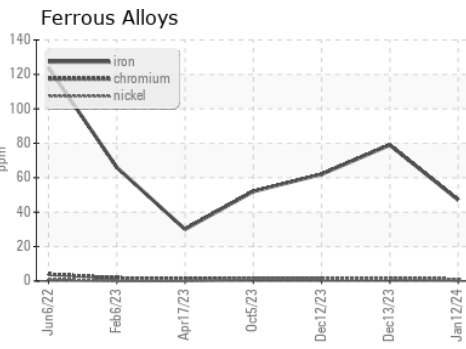
# OIL ANALYSIS REPORT



PARAMETER	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	14.0	14.2

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0098173 **Received** : 17 Jan 2024  
**Lab Number** : 06063340 **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10834722 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 652 - Fredericksburg Hauling**  
 10954 Houser Drive  
 Fredericksburg, VA  
 US 22408  
 Contact: WILLIAM MILO  
 wmilo@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)