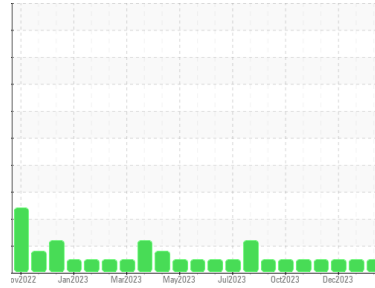




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**925053**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- QTS)**

## 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>GFL0097165</b>	GFL0097168	GFL0097175
Sample Date	Client Info	<b>29 Jan 2024</b>	22 Dec 2023	11 Dec 2023
Machine Age	hrs	<b>19747</b>	19597	19447
Oil Age	hrs	<b>300</b>	150	582
Oil Changed	Client Info	<b>Not Chngd</b>	Not Chngd	Changed
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<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 >120	<b>7</b>	4	20
Chromium	ppm ASTM D5185m >20	<b>0</b>	0	<1
Nickel	ppm ASTM D5185m >5	<b>0</b>	0	1
Titanium	ppm ASTM D5185m >2	<b>0</b>	0	<1
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>2</b>	2	3
Lead	ppm ASTM D5185m >40	<b>&lt;1</b>	0	<1
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	0	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>	0	<1

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>4</b>	4	3
Barium	ppm ASTM D5185m 0	<b>0</b>	0	12
Molybdenum	ppm ASTM D5185m 60	<b>54</b>	58	54
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	0	<1
Magnesium	ppm ASTM D5185m 1010	<b>910</b>	892	812
Calcium	ppm ASTM D5185m 1070	<b>947</b>	1045	950
Phosphorus	ppm ASTM D5185m 1150	<b>995</b>	966	898
Zinc	ppm ASTM D5185m 1270	<b>1196</b>	1129	1082
Sulfur	ppm ASTM D5185m 2060	<b>3063</b>	2939	3037

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>5</b>	3	7
Sodium	ppm ASTM D5185m	<b>2</b>	6	2
Potassium	ppm ASTM D5185m >20	<b>3</b>	0	2

## INFRA-RED

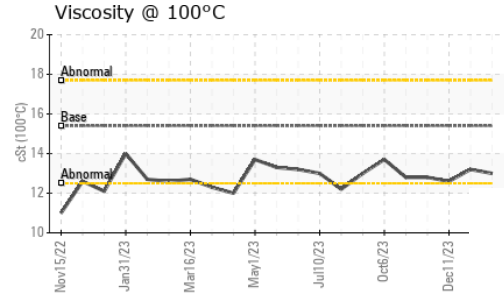
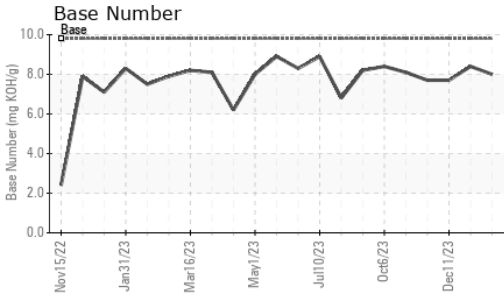
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >4	<b>0.1</b>	0.1	0.2
Nitration	Abs/cm *ASTM D7624 >20	<b>6.8</b>	5.8	6.8
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>17.5</b>	17.1	17.5

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>13.7</b>	13.5	13.6
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.0</b>	8.4	7.7



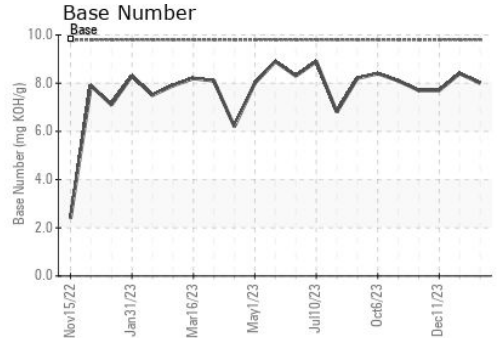
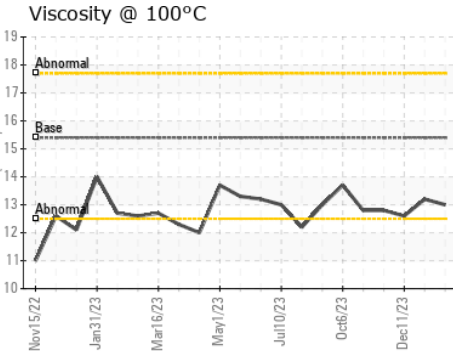
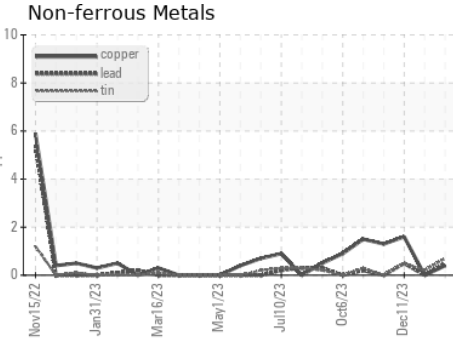
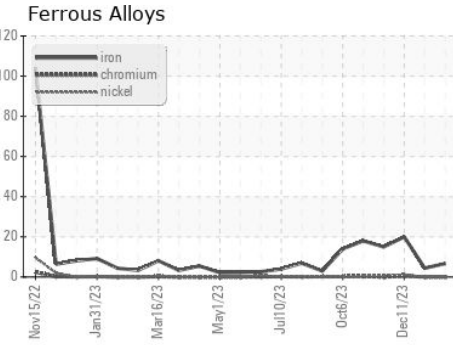
# OIL ANALYSIS REPORT



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>13.0</b>	13.2	12.6

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0097165 **Received** : 02 Feb 2024  
**Lab Number** : 06079008 **Diagnosed** : 05 Feb 2024  
**Unique Number** : 10861099 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

GFL Environmental - 073 - Warner Robins - Transwaste  
 155 Story Road  
 Warner Robins, GA  
 US 31093  
 Contact: JOSH MALONEY  
 jmaloney@gflenv.com

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)