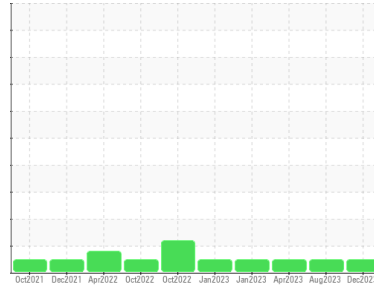




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**429057-402462**

Component  
**Diesel Engine**

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

## 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>GFL0092566</b>	GFL0071925	GFL0071923
Sample Date	Client Info	<b>06 Dec 2023</b>	11 Aug 2023	28 Apr 2023
Machine Age	hrs	<b>11292</b>	10533	9851
Oil Age	hrs	<b>600</b>	600	600
Oil Changed	Client Info	<b>Changed</b>	Changed	Oil Added
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 >110	<b>8</b>	8	11
Chromium	ppm ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm ASTM D5185m	<b>0</b>	<1	<1
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >25	<b>1</b>	5	2
Lead	ppm ASTM D5185m >45	<b>&lt;1</b>	0	<1
Copper	ppm ASTM D5185m >85	<b>&lt;1</b>	<1	<1
Tin	ppm ASTM D5185m >4	<b>0</b>	0	<1
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>3</b>	<1	3
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>60</b>	62	64
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>947</b>	978	1033
Calcium	ppm ASTM D5185m 1070	<b>1117</b>	1218	1203
Phosphorus	ppm ASTM D5185m 1150	<b>1082</b>	1058	1067
Zinc	ppm ASTM D5185m 1270	<b>1297</b>	1343	1293
Sulfur	ppm ASTM D5185m 2060	<b>3018</b>	3975	3568

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >30	<b>5</b>	2	4
Sodium	ppm ASTM D5185m	<b>2</b>	4	4
Potassium	ppm ASTM D5185m >20	<b>0</b>	19	4

## INFRA-RED

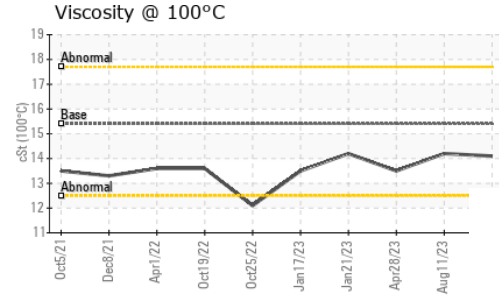
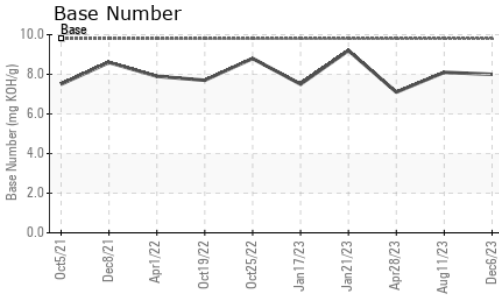
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.3</b>	0.6	0.3
Nitration	Abs/cm *ASTM D7624 >20	<b>7.5</b>	7.4	8.0
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>19.6</b>	19.2	18.2

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>15.5</b>	14.5	15.0
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.0</b>	8.1	7.1



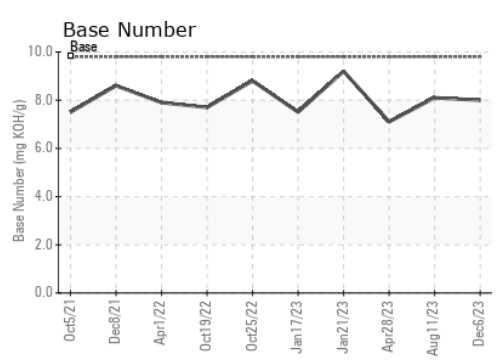
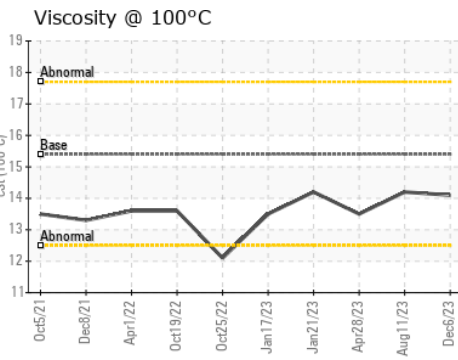
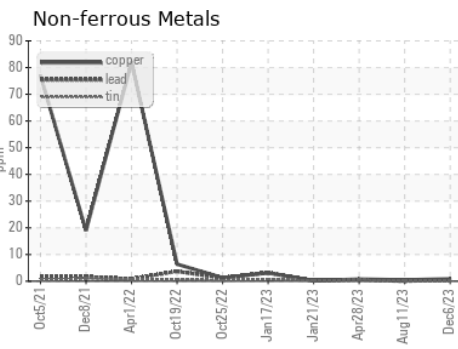
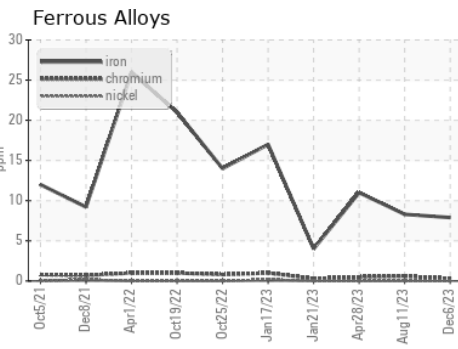
# OIL ANALYSIS REPORT



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>14.1</b>	14.2	13.5

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0092566 **Received** : 07 Dec 2023  
**Lab Number** : **06028504** **Diagnosed** : 09 Dec 2023  
**Unique Number** : 10778295 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 885 - Orlando**  
 1263 W Landstreet Rd  
 Orlando, FL  
 US 32824  
 Contact: DAWN WALLACE

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)

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