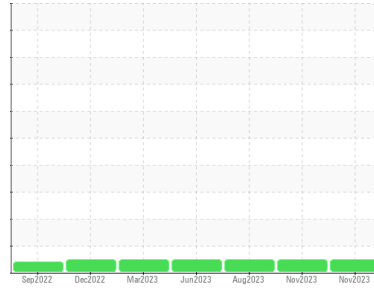




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**723050**

Component  
**Diesel Engine**

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

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: Sample only )

### 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>GFL0094864</b>	GFL0094857	GFL0088261
Sample Date	Client Info	<b>08 Nov 2023</b>	06 Nov 2023	17 Aug 2023
Machine Age	hrs	<b>2414</b>	2393	2097
Oil Age	hrs	<b>84</b>	63	570
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 >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>6</b>	6	60
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	<1	4
Nickel	ppm ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	0	<1
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>4</b>	2	17
Lead	ppm ASTM D5185m >40	<b>&lt;1</b>	0	0
Copper	ppm ASTM D5185m >330	<b>0</b>	<1	2
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	0	0
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>5</b>	2	2
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>57</b>	57	65
Manganese	ppm ASTM D5185m 0	<b>0</b>	0	1
Magnesium	ppm ASTM D5185m 1010	<b>908</b>	867	961
Calcium	ppm ASTM D5185m 1070	<b>1047</b>	993	1126
Phosphorus	ppm ASTM D5185m 1150	<b>1044</b>	876	953
Zinc	ppm ASTM D5185m 1270	<b>1241</b>	1160	1232
Sulfur	ppm ASTM D5185m 2060	<b>3134</b>	3012	3089

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>3</b>	3	9
Sodium	ppm ASTM D5185m	<b>1</b>	0	3
Potassium	ppm ASTM D5185m >20	<b>8</b>	7	31

## INFRA-RED

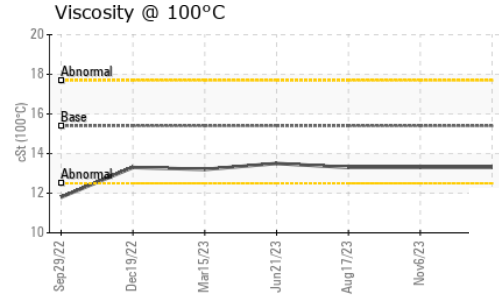
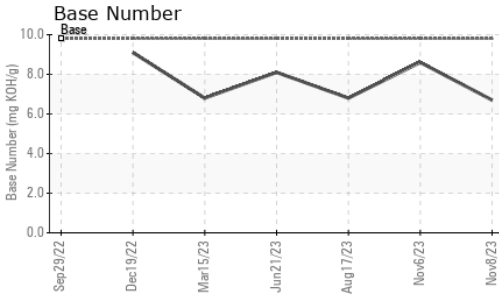
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>1.3</b>	0.1	0.9
Nitration	Abs/cm *ASTM D7624 >20	<b>10.8</b>	5.1	10.0
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>23.2</b>	17.6	21.2

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>17.1</b>	13.2	18.3
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>6.7</b>	8.6	6.8



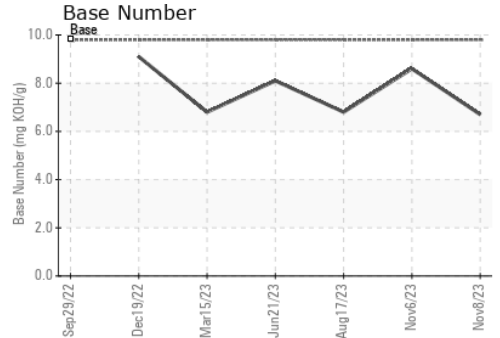
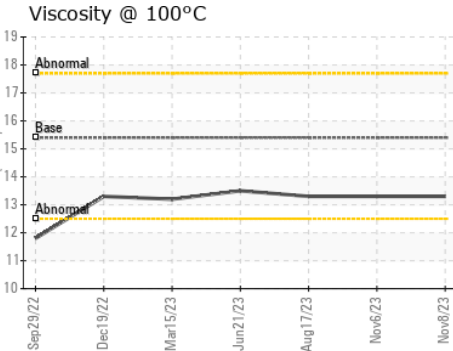
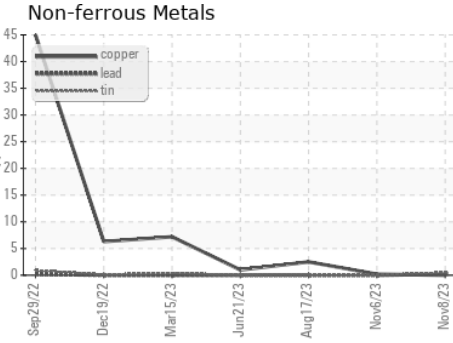
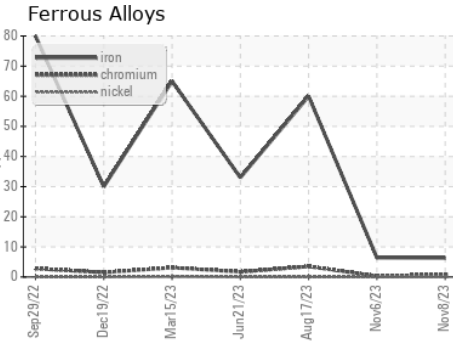
# OIL ANALYSIS REPORT



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>13.3</b>	13.3	13.3

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0094864 **Received** : 13 Nov 2023  
**Lab Number** : 06006240 **Diagnosed** : 15 Nov 2023  
**Unique Number** : 10740002 **Diagnostician** : Don Baldrige  
**Test Package** : FLEET

**GFL Environmental - 625 - Harrison Hauling**  
 4102 Industrial Pkwy  
 Harrison, MI  
 US 48625  
 Contact: Glenda Standen  
 gstanden@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)