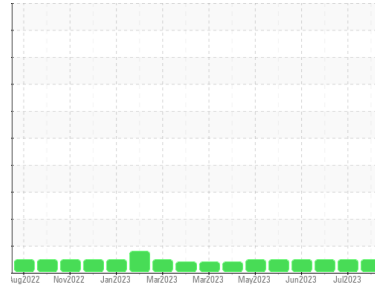




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**910093**

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>GFL0086352</b>	GFL0045443	GFL0045436
Sample Date	Client Info	<b>31 Jul 2023</b>	14 Jul 2023	10 Jul 2023
Machine Age	hrs	<b>7129</b>	6995	6880
Oil Age	hrs	<b>134</b>	626	0
Oil Changed	Client Info	<b>Not Changed</b>	Changed	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
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >100	<b>3</b>	9	7
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	1	2
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m >330	<b>0</b>	<1	<1
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0	<b>11</b>	10	14
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m 60	<b>61</b>	63	61
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m 1010	<b>936</b>	714	708
Calcium	ppm	ASTM D5185m 1070	<b>1077</b>	1110	1066
Phosphorus	ppm	ASTM D5185m 1150	<b>1060</b>	884	879
Zinc	ppm	ASTM D5185m 1270	<b>1293</b>	1104	1097
Sulfur	ppm	ASTM D5185m 2060	<b>3948</b>	2964	2941

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	<b>3</b>	2	3
Sodium	ppm	ASTM D5185m	<b>3</b>	1	3
Potassium	ppm	ASTM D5185m >20	<b>3</b>	5	4

## INFRA-RED

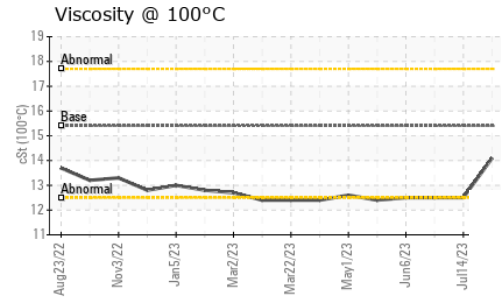
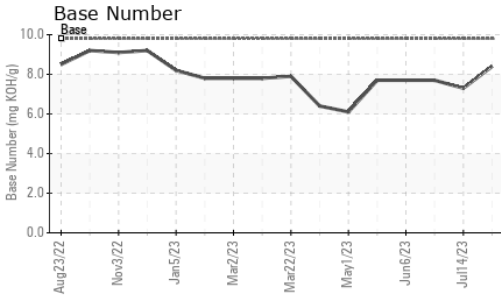
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >3	<b>0.3</b>	0.8	0.7
Nitration	Abs/cm	*ASTM D7624 >20	<b>5.4</b>	7.8	7.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>17.4</b>	18.5	18.7

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>12.7</b>	12.5	12.6
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.4</b>	7.3	7.7



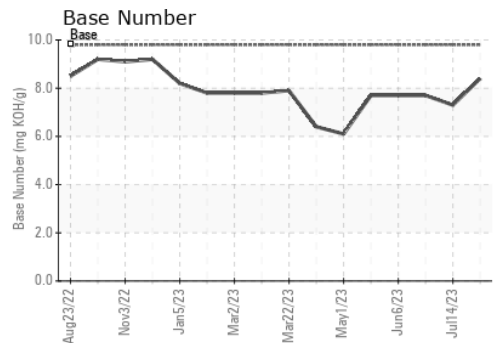
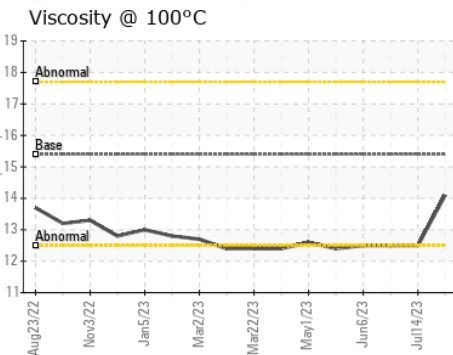
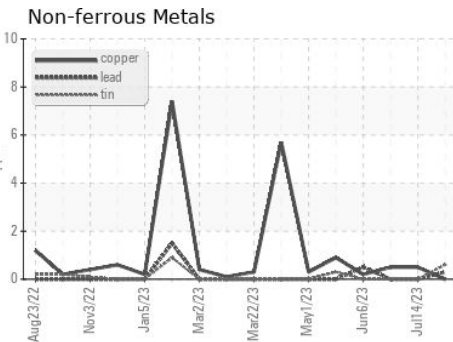
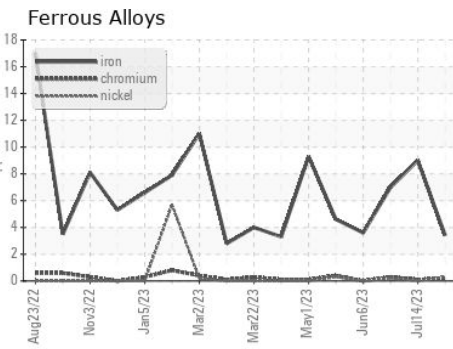
# OIL ANALYSIS REPORT



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>14.1</b>	12.5

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0086352  
**Lab Number** : 05921979  
**Unique Number** : 10601926  
**Test Package** : FLEET

**GFL environmental - 867 - Trafford (Blount Hauling)**  
 1130 County Line Rd  
 Trafford, AL  
 US 35172  
 Contact: Jonathan Williams  
 jonathan.williams@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)

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F: