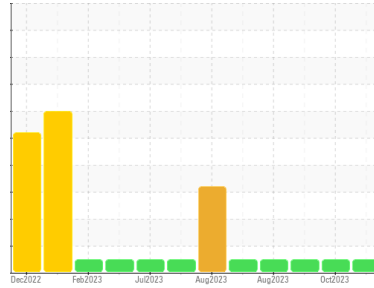




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**429052-402457**

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>GFL0094785</b>	GFL0086347	GFL0078691
Sample Date	Client Info		<b>07 Nov 2023</b>	09 Oct 2023	13 Sep 2023
Machine Age	hrs	Client Info	<b>11295</b>	11174	11037
Oil Age	hrs	Client Info	<b>121</b>	542	405
Oil Changed	Client Info		<b>N/A</b>	Changed	Not 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 >110	<b>9</b>	23	11
Chromium	ppm	ASTM D5185m >4	<b>0</b>	3	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	<1	2
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>4</b>	3	3
Lead	ppm	ASTM D5185m >45	<b>0</b>	4	<1
Copper	ppm	ASTM D5185m >85	<b>1</b>	2	1
Tin	ppm	ASTM D5185m >4	<b>0</b>	<1	<1
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>20</b>	18	8
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>103</b>	70	65
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m 1010	<b>905</b>	928	967
Calcium	ppm	ASTM D5185m 1070	<b>1181</b>	1181	1171
Phosphorus	ppm	ASTM D5185m 1150	<b>1036</b>	1127	1043
Zinc	ppm	ASTM D5185m 1270	<b>1251</b>	1303	1294
Sulfur	ppm	ASTM D5185m 2060	<b>2959</b>	3159	2999

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	<b>3</b>	9	6
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	5	6
Potassium	ppm	ASTM D5185m >20	<b>14</b>	5	6

## INFRA-RED

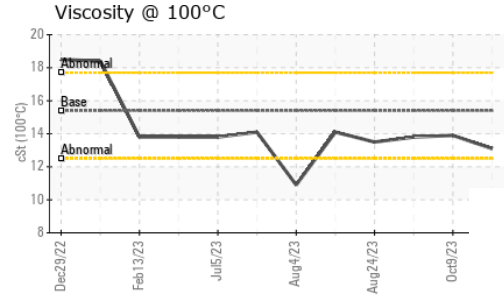
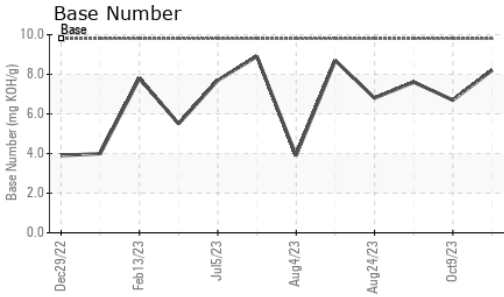
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.4</b>	0.8	0.5
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.1</b>	11.7	8.7
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.6</b>	24.2	21.2

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.8</b>	20.6	16.9
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.2</b>	6.7	7.6



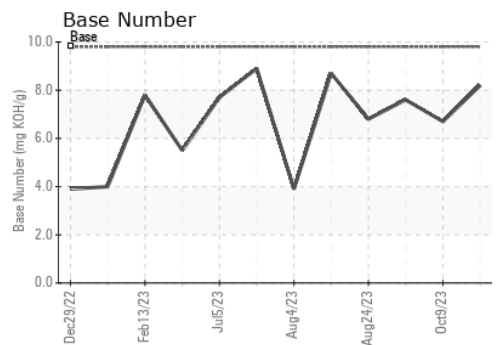
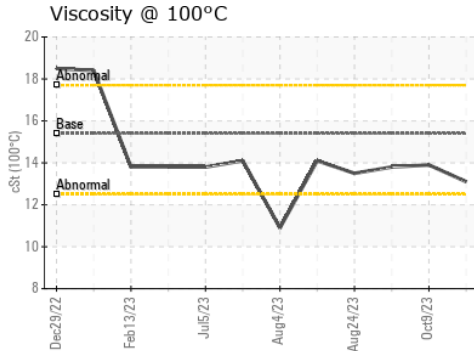
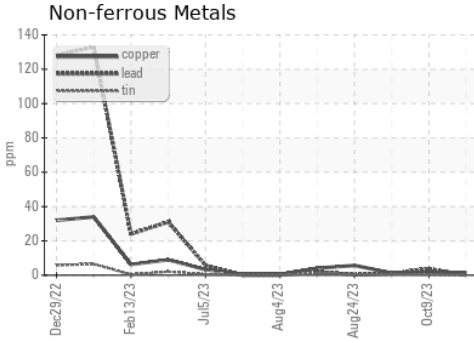
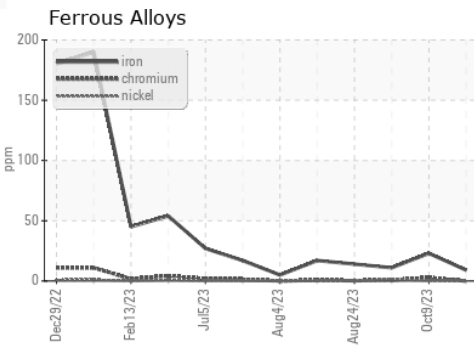
# OIL ANALYSIS REPORT



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>13.1</b>	13.9	13.8

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0094785 **Received** : 10 Nov 2023  
**Lab Number** : **06003976** **Diagnosed** : 10 Nov 2023  
**Unique Number** : 10737738 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

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