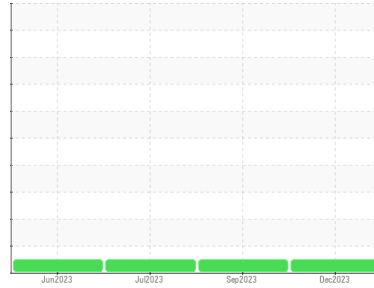




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**713066**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a new component breaking in.

### 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>GFL0086922</b>	GFL0086997	GFL0086999
Sample Date	Client Info		<b>04 Dec 2023</b>	12 Sep 2023	13 Jul 2023
Machine Age	hrs	Client Info	<b>1800</b>	1546	1110
Oil Age	hrs	Client Info	<b>690</b>	436	600
Oil Changed	Client Info		<b>N/A</b>	Not Changd	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>11</b>	13	24
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	3
Titanium	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m >20	<b>1</b>	2	4
Lead	ppm	ASTM D5185m >40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m >330	<b>2</b>	15	81
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	1	2
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>4</b>	5	25
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>55</b>	64	75
Manganese	ppm	ASTM D5185m 0	<b>0</b>	<1	2
Magnesium	ppm	ASTM D5185m 1010	<b>950</b>	1084	826
Calcium	ppm	ASTM D5185m 1070	<b>836</b>	1251	1147
Phosphorus	ppm	ASTM D5185m 1150	<b>867</b>	1058	885
Zinc	ppm	ASTM D5185m 1270	<b>1031</b>	1358	1104
Sulfur	ppm	ASTM D5185m 2060	<b>2740</b>	3667	2389

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>8</b>	7	18
Sodium	ppm	ASTM D5185m	<b>1</b>	2	0
Potassium	ppm	ASTM D5185m >20	<b>0</b>	3	3

## INFRA-RED

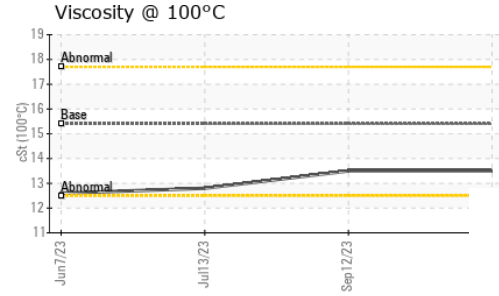
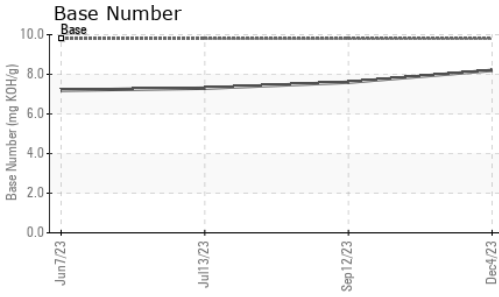
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.4</b>	0.5	0.5
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.1</b>	7.9	9.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.8</b>	19.4	20.9

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.7</b>	15.2	17.3
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.2</b>	7.6	7.3



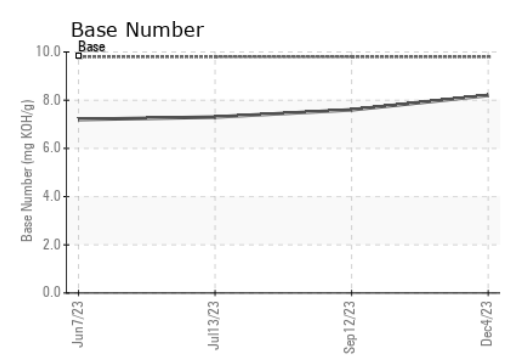
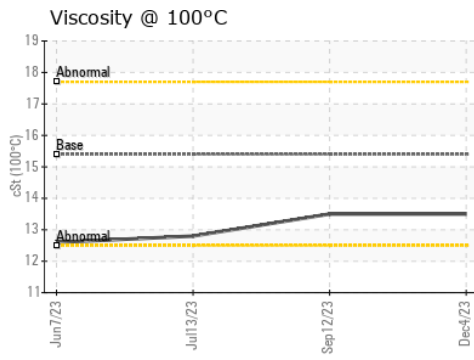
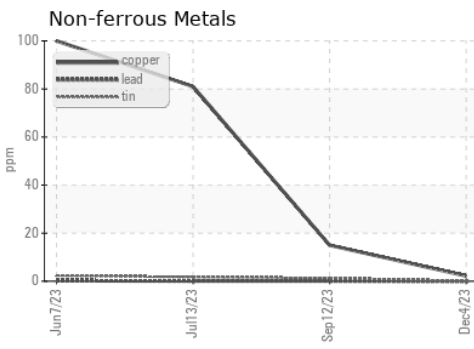
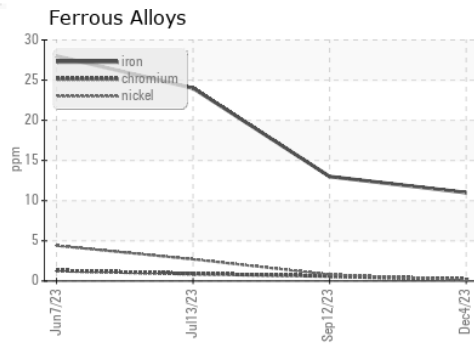
# OIL ANALYSIS REPORT



PARAMETER	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>13.5</b>	13.5	12.8

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0086922 **Recieved** : 07 Dec 2023  
**Lab Number** : **06028527** **Diagnosed** : 15 Dec 2023  
**Unique Number** : 10778318 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 408 - Brown City**  
 4235 M-53  
 BROWN CITY, MI  
 US 48416  
 Contact: WILLIAM DEOLA  
 bdeola@gflenv.com  
 T: (810)238-2836  
 F:

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)