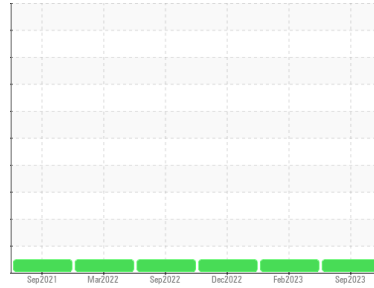




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**729030**

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>GFL0046378</b>	GFL0071239	GFL0063271
Sample Date	Client Info		<b>19 Sep 2023</b>	24 Feb 2023	09 Dec 2022
Machine Age	hrs	Client Info	<b>0</b>	8057	7629
Oil Age	hrs	Client Info	<b>0</b>	600	600
Oil Changed	Client Info		<b>Not Changed</b>	Changed	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

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >110	<b>30</b>	<1	4
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m >2	<b>1</b>	0	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m >25	<b>4</b>	1	2
Lead	ppm	ASTM D5185m >45	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m >85	<b>16</b>	0	<1
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m	<b>0</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>79</b>	4	4
Barium	ppm	ASTM D5185m 0	<b>6</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>105</b>	57	63
Manganese	ppm	ASTM D5185m 0	<b>5</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>661</b>	879	902
Calcium	ppm	ASTM D5185m 1070	<b>1264</b>	1076	1166
Phosphorus	ppm	ASTM D5185m 1150	<b>702</b>	947	1062
Zinc	ppm	ASTM D5185m 1270	<b>878</b>	1190	1251
Sulfur	ppm	ASTM D5185m 2060	<b>2904</b>	3188	3571

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	<b>15</b>	2	3
Sodium	ppm	ASTM D5185m	<b>5</b>	<1	0
Potassium	ppm	ASTM D5185m >20	<b>6</b>	<1	3
Glycol	%	*ASTM D2982	<b>NEG</b>	NEG	NEG

## INFRA-RED

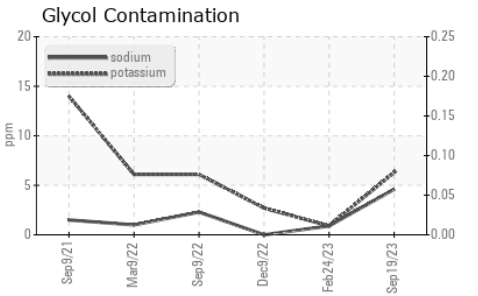
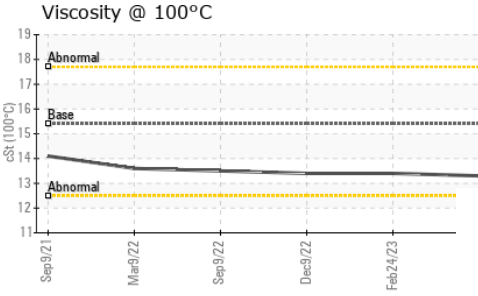
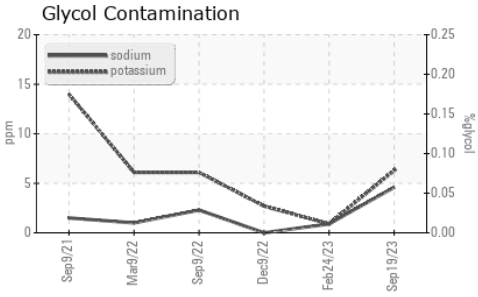
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.3</b>	0.2	0.2
Nitration	Abs/cm	*ASTM D7624 >20	<b>10.4</b>	6.7	7.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.5</b>	18.1	20.1

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>19.9</b>	13.9	15.4
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>6.3</b>	9.0	9.4



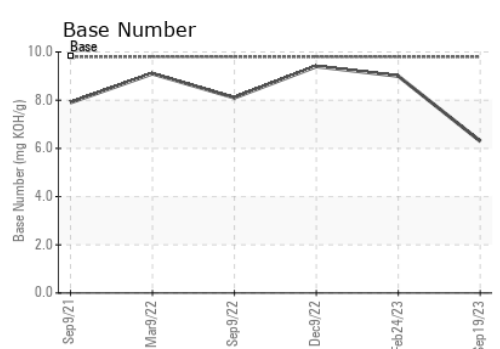
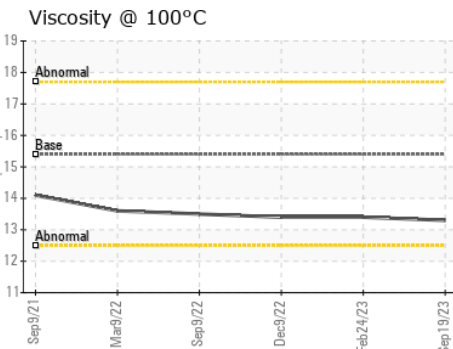
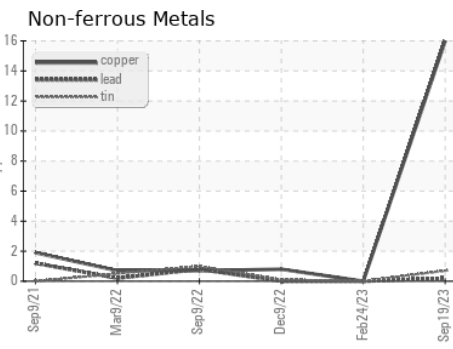
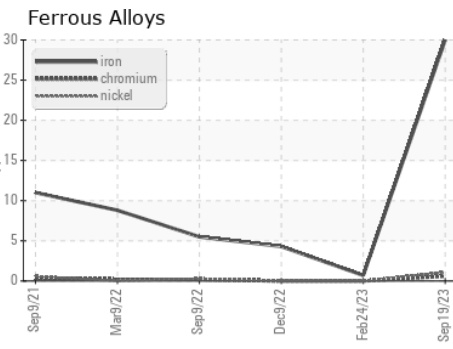
# OIL ANALYSIS REPORT



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>	13.4	13.4

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0046378 **Received** : 22 Sep 2023  
**Lab Number** : **05958347** **Diagnosed** : 27 Sep 2023  
**Unique Number** : 10659560 **Diagnostician** : Don Baldrige  
**Test Package** : FLEET ( Additional Tests: Glycol )

**GFL Environmental - 465 - Pontiac**  
 888 Baldwin  
 Pontiac, MI  
 US 48340  
 Contact: Ricky Matthews  
 rickymathews@gflenv.com  
 T: (586)825-9514  
 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)