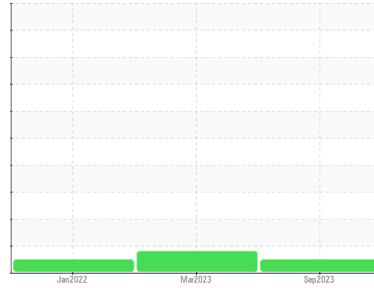




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**211005-632125**

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>GFL0093255</b>	GFL0074179	GFL0030791
Sample Date	Client Info		<b>27 Sep 2023</b>	30 Mar 2023	20 Jan 2022
Machine Age	mls	Client Info	<b>137233</b>	2669	1558
Oil Age	mls	Client Info	<b>137233</b>	2669	0
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	ABNORMAL	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>13</b>	59	46
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	3	2
Nickel	ppm	ASTM D5185m >4	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >20	<b>7</b>	67	36
Lead	ppm	ASTM D5185m >40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >330	<b>&lt;1</b>	2	4
Tin	ppm	ASTM D5185m >15	<b>0</b>	<1	<1
Antimony	ppm	ASTM D5185m	<b>---</b>	---	<1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>2</b>	0	5
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>62</b>	62	59
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>1008</b>	956	970
Calcium	ppm	ASTM D5185m 1070	<b>1249</b>	1103	1103
Phosphorus	ppm	ASTM D5185m 1150	<b>1059</b>	993	1003
Zinc	ppm	ASTM D5185m 1270	<b>1313</b>	1257	1256
Sulfur	ppm	ASTM D5185m 2060	<b>3015</b>	2918	2978

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>4</b>	10	10
Sodium	ppm	ASTM D5185m	<b>3</b>	3	2
Potassium	ppm	ASTM D5185m >20	<b>11</b>	141	90

## INFRA-RED

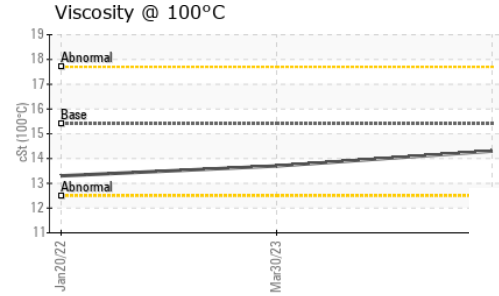
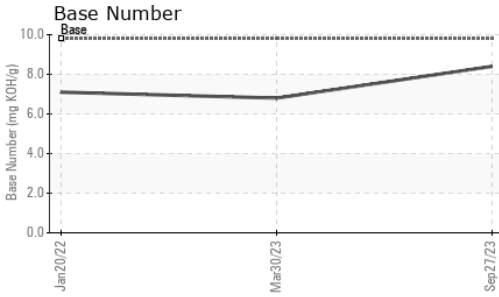
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.5</b>	1.2	0.9
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.5</b>	13.3	11.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.4</b>	25.1	24.1

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.2</b>	23.1	21.9
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.4</b>	6.8	7.1



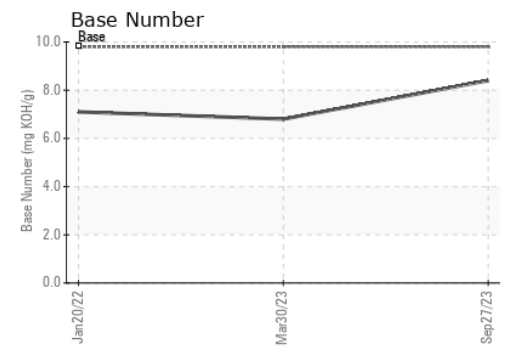
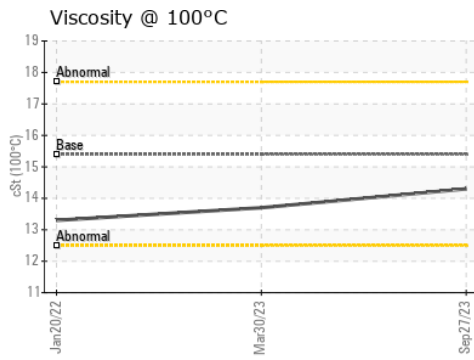
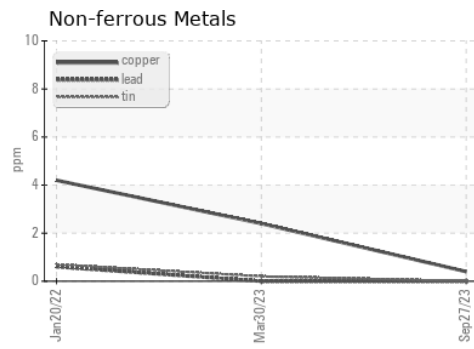
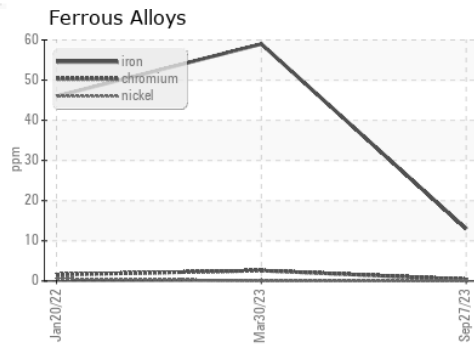
# OIL ANALYSIS REPORT



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>14.3</b>	13.7	13.3

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0093255 **Received** : 04 Oct 2023  
**Lab Number** : **05968718** **Diagnosed** : 04 Oct 2023  
**Unique Number** : 10675269 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 865 - East Mount Hauling**  
 7213 East Mount Houston Road  
 Houston, TX  
 US 77050  
 Contact: Saul Castillo  
 saul.castillo@gflenv.com  
 T:  
 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)