



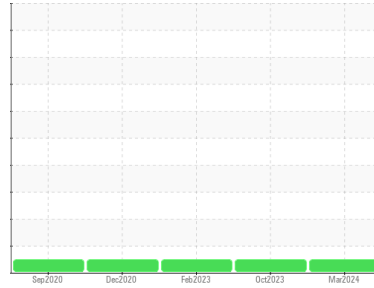
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**826017**  
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>GFL0101784</b>	GFL0090096	GFL0069457
Sample Date	Client Info		<b>07 Mar 2024</b>	03 Oct 2023	03 Feb 2023
Machine Age	hrs	Client Info	<b>37000</b>	36900	2144
Oil Age	hrs	Client Info	<b>600</b>	600	0
Oil Changed	Client Info		<b>Changed</b>	Changed	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>10</b>	3	9
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m >5	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	<1	14
Lead	ppm	ASTM D5185m >40	<b>1</b>	0	<1
Copper	ppm	ASTM D5185m >330	<b>3</b>	1	<1
Tin	ppm	ASTM D5185m >15	<b>0</b>	0	<1
Antimony	ppm	ASTM D5185m	<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>3</b>	10	0
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>60</b>	56	62
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>951</b>	922	976
Calcium	ppm	ASTM D5185m 1070	<b>1089</b>	1098	1081
Phosphorus	ppm	ASTM D5185m 1150	<b>950</b>	1002	1029
Zinc	ppm	ASTM D5185m 1270	<b>1177</b>	1237	1313
Sulfur	ppm	ASTM D5185m 2060	<b>2846</b>	3144	3749

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>4</b>	3	2
Sodium	ppm	ASTM D5185m	<b>2</b>	<1	3
Potassium	ppm	ASTM D5185m >20	<b>1</b>	0	20

## INFRA-RED

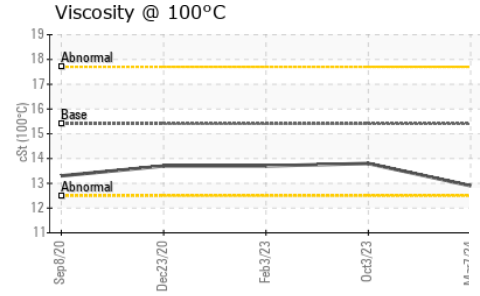
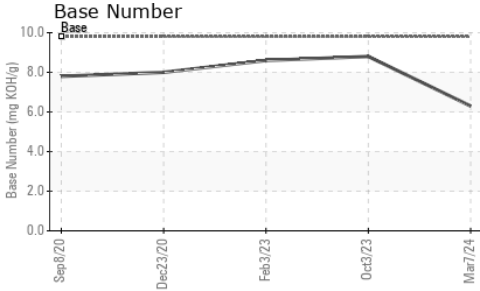
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.3</b>	0.1	0.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.3</b>	5.3	7.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.2</b>	17.4	18.8

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.7</b>	13.3	14.6
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>6.3</b>	8.8	8.6



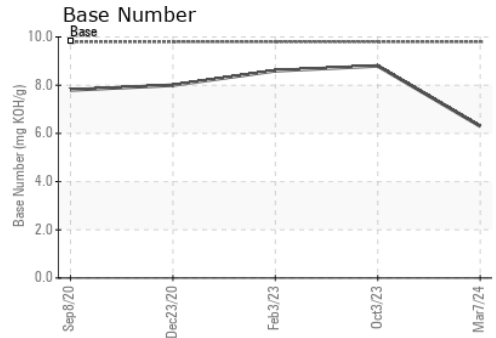
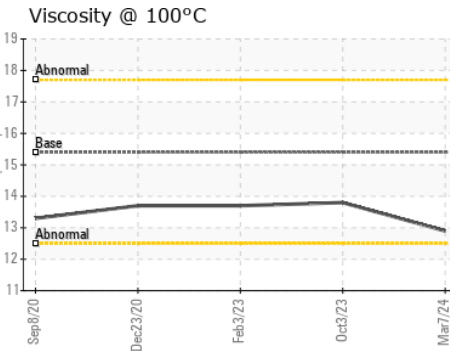
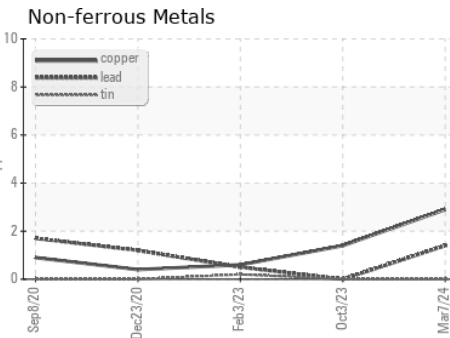
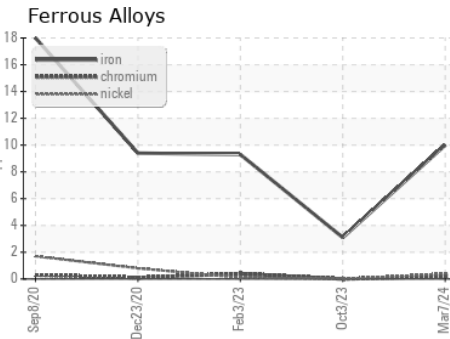
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	NONE
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG
Free Water	scalar	*Visual		<b>NEG</b>	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.9</b>	13.8

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0101784  
**Lab Number** : 06112495  
**Unique Number** : 10915992  
**Test Package** : FLEET

**Received** : 08 Mar 2024  
**Tested** : 08 Mar 2024  
**Diagnosed** : 08 Mar 2024 - Wes Davis

**GFL Environmental - 030 - Conway Myrtle Beach**  
 3010 HWY 378  
 Conway, SC  
 US 29527  
 Contact: ARCILIO RUEZ  
 aruiz@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: