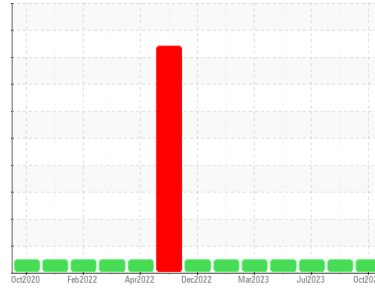




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**829030-1081**

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>GFL0097343</b>	GFL0089519	GFL0067917
Sample Date	Client Info		<b>31 Oct 2023</b>	03 Aug 2023	20 Jul 2023
Machine Age	hrs	Client Info	<b>13898</b>	10661	10578
Oil Age	hrs	Client Info	<b>13898</b>	80	573
Oil Changed	Client Info		<b>N/A</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
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >110	<b>6</b>	3	8
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m >25	<b>2</b>	<1	2
Lead	ppm	ASTM D5185m >45	<b>&lt;1</b>	<1	2
Copper	ppm	ASTM D5185m >85	<b>0</b>	<1	2
Tin	ppm	ASTM D5185m >4	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</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>7</b>	2	4
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>57</b>	57	67
Manganese	ppm	ASTM D5185m 0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>924</b>	977	1071
Calcium	ppm	ASTM D5185m 1070	<b>1036</b>	1070	1215
Phosphorus	ppm	ASTM D5185m 1150	<b>1003</b>	1026	1086
Zinc	ppm	ASTM D5185m 1270	<b>1231</b>	1276	1356
Sulfur	ppm	ASTM D5185m 2060	<b>2797</b>	3632	3547

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	<b>6</b>	3	5
Sodium	ppm	ASTM D5185m	<b>4</b>	3	5
Potassium	ppm	ASTM D5185m >20	<b>3</b>	1	2

## INFRA-RED

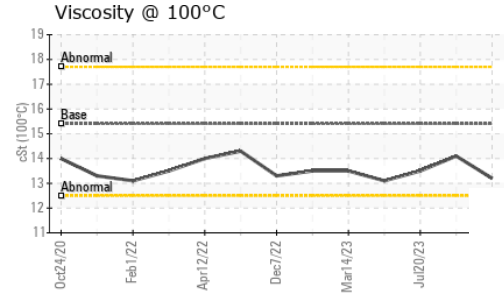
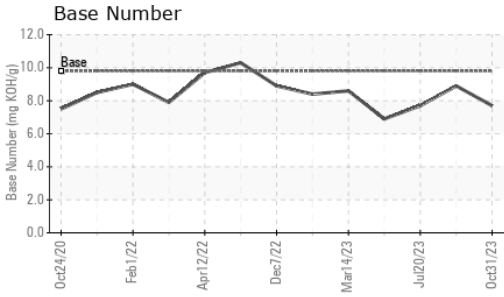
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.3</b>	0.1	0.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.2</b>	5.9	8.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.1</b>	18.2	20.2

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.9</b>	14.0	16.1
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.7</b>	8.9	7.7



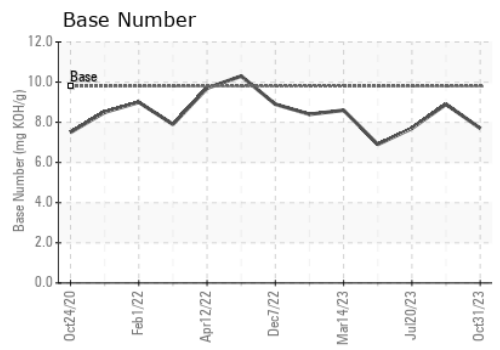
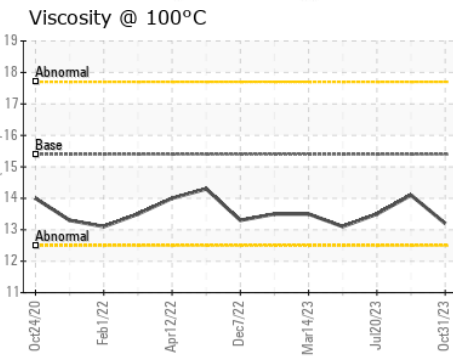
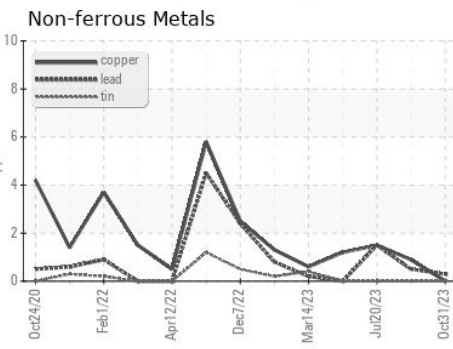
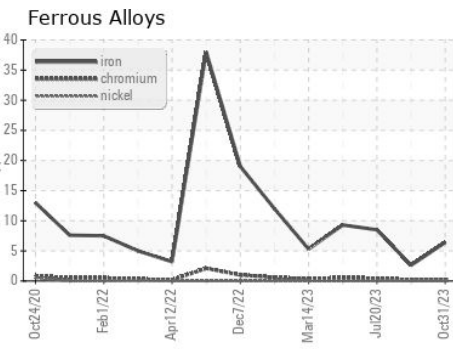
# OIL ANALYSIS REPORT



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>13.2</b>	14.1	13.5

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0097343 **Received** : 02 Nov 2023  
**Lab Number** : **05997270** **Diagnosed** : 03 Nov 2023  
**Unique Number** : 10725630 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 654S - Midlothian**  
 12230 Deergrove Road  
 Midlothian, VA  
 US 23112  
 Contact: Corbin Umphlet  
 cumphlet@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: