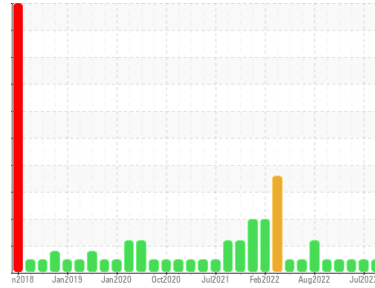




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**10884**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (48 QTS)**

## 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>GFL0094731</b>	GFL0089339	GFL0056709	
Sample Date	Client Info	<b>11 Oct 2023</b>	19 Jul 2023	24 Apr 2023	
Machine Age	hrs	Client Info	<b>16665</b>	16104	15535
Oil Age	hrs	Client Info	<b>16665</b>	0	550
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 >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>11</b>	16	17
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185m >4	<b>&lt;1</b>	0	0
Titanium	ppm ASTM D5185m	<b>0</b>	0	0
Silver	ppm ASTM D5185m >3	<b>&lt;1</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>5</b>	5	4
Lead	ppm ASTM D5185m >40	<b>&lt;1</b>	0	0
Copper	ppm ASTM D5185m >330	<b>1</b>	0	<1
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	0	0
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>8</b>	2	5
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>57</b>	64	58
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>870</b>	1006	919
Calcium	ppm ASTM D5185m 1070	<b>1086</b>	1140	1083
Phosphorus	ppm ASTM D5185m 1150	<b>1001</b>	1078	999
Zinc	ppm ASTM D5185m 1270	<b>1226</b>	1344	1246
Sulfur	ppm ASTM D5185m 2060	<b>2838</b>	3688	3497

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>4</b>	4	3
Sodium	ppm ASTM D5185m	<b>21</b>	18	15
Potassium	ppm ASTM D5185m >20	<b>5</b>	0	<1

## INFRA-RED

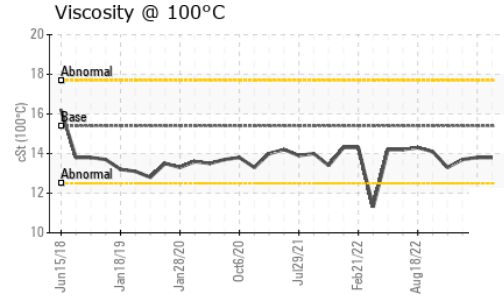
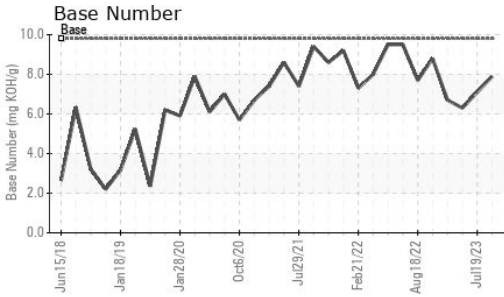
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.4</b>	0.4	0.3
Nitration	Abs/cm *ASTM D7624 >20	<b>9.4</b>	10.1	9.2
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>20.1</b>	20.7	19.7

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>16.9</b>	18.5	19.0
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.9</b>	7.1	6.3



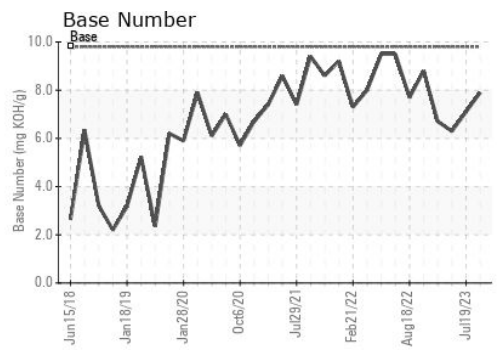
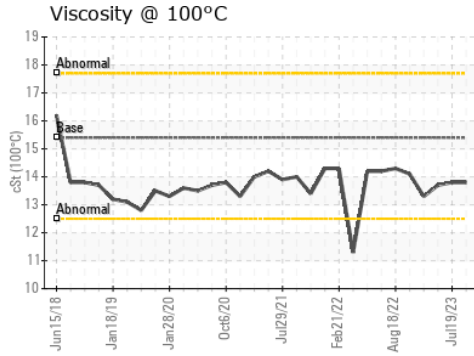
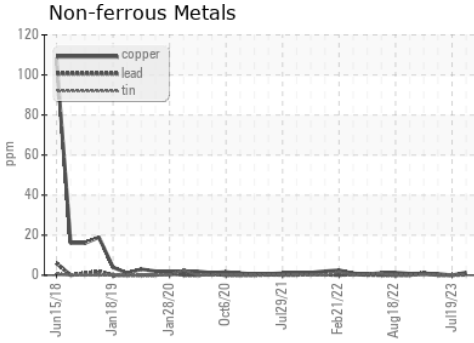
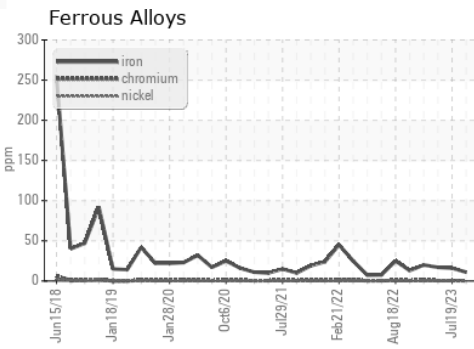
# OIL ANALYSIS REPORT



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>13.8</b>	13.8	13.7

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0094731 **Received** : 13 Oct 2023  
**Lab Number** : **05978078** **Diagnosed** : 13 Oct 2023  
**Unique Number** : 10695373 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 001 - Raleigh(CNG)**  
 3741 Conquest Drive  
 Garner, NC  
 US 27529  
 Contact: Craig Johnson  
 craig.johnson@gflenv.com  
 T: (919)662-7100  
 F: (919)662-7130

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)