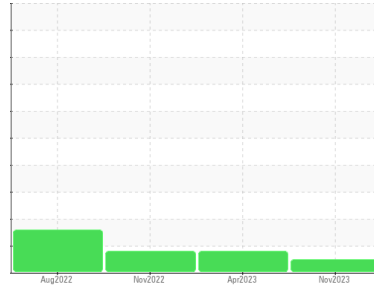




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**813003**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (42 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>GFL0085165</b>	GFL0071586	GFL0053167
Sample Date	Client Info		<b>02 Nov 2023</b>	20 Apr 2023	02 Nov 2022
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>600</b>	600	600
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	ABNORMAL	ABNORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<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 >120	<b>32</b>	60	26
Chromium	ppm	ASTM D5185m >20	<b>1</b>	2	1
Nickel	ppm	ASTM D5185m >5	<b>3</b>	▲ 13	▲ 14
Titanium	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	1
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	0	2
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m >330	<b>5</b>	13	47
Tin	ppm	ASTM D5185m >15	<b>1</b>	2	2
Vanadium	ppm	ASTM D5185m	<b>0</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>2</b>	0	4
Barium	ppm	ASTM D5185m 0	<b>5</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>63</b>	65	65
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	1	1
Magnesium	ppm	ASTM D5185m 1010	<b>912</b>	858	593
Calcium	ppm	ASTM D5185m 1070	<b>1089</b>	1159	1641
Phosphorus	ppm	ASTM D5185m 1150	<b>1052</b>	966	944
Zinc	ppm	ASTM D5185m 1270	<b>1221</b>	1212	1191
Sulfur	ppm	ASTM D5185m 2060	<b>2867</b>	2479	3254

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>6</b>	7	8
Sodium	ppm	ASTM D5185m	<b>2</b>	4	4
Potassium	ppm	ASTM D5185m >20	<b>2</b>	4	2

## INFRA-RED

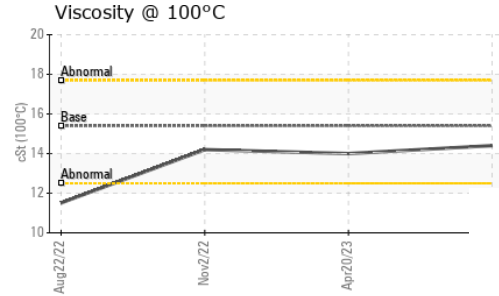
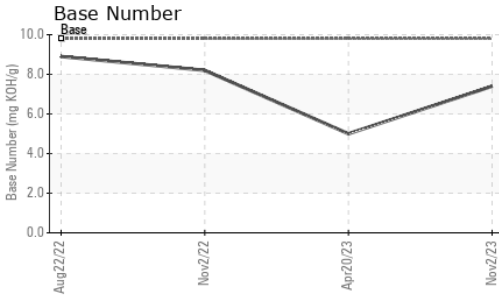
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>1.5</b>	2.1	1.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>10.1</b>	12.5	10.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>22.5</b>	26.2	23.4

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.8</b>	21.1	18.7
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.4</b>	5.0	8.2



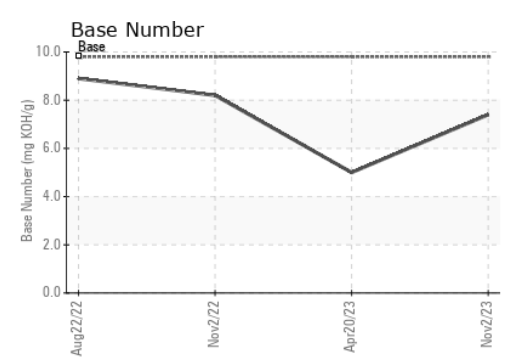
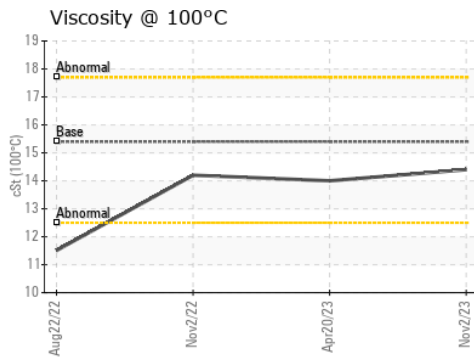
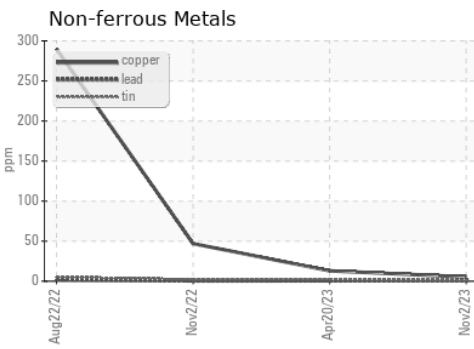
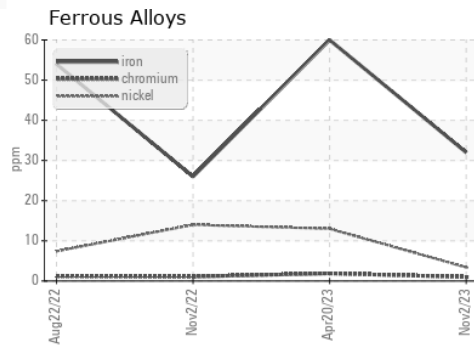
# OIL ANALYSIS REPORT



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>14.4</b>	14.0	14.2

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0085165 **Received** : 07 Nov 2023  
**Lab Number** : 06000228 **Diagnosed** : 07 Nov 2023  
**Unique Number** : 10728588 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 035 - Greensboro**  
 1236 Elon Place  
 High Point, NC  
 US 27263  
 Contact: JORGE COSTA  
 jorge.costa@gflenv.com  
 T: (336)668-3712  
 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)