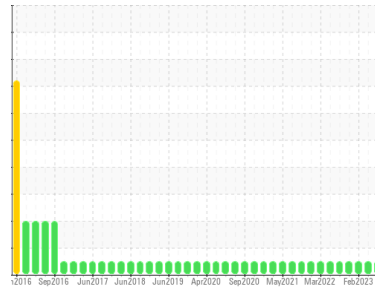




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**GFL035**  
 Machine Id  
**2627**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (40 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>GFL0102310</b>	GFL0071547	GFL0061699
Sample Date	Client Info	<b>22 Dec 2023</b>	07 Jun 2023	23 Feb 2023
Machine Age	hrs	<b>18669</b>	18669	18669
Oil Age	hrs	<b>600</b>	600	600
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 >165	<b>9</b>	18	14
Chromium	ppm ASTM D5185m >5	<b>0</b>	1	<1
Nickel	ppm ASTM D5185m >4	<b>0</b>	<1	0
Titanium	ppm ASTM D5185m >2	<b>0</b>	0	0
Silver	ppm ASTM D5185m >2	<b>0</b>	0	<1
Aluminum	ppm ASTM D5185m >20	<b>1</b>	7	1
Lead	ppm ASTM D5185m >150	<b>0</b>	3	2
Copper	ppm ASTM D5185m >90	<b>0</b>	0	<1
Tin	ppm ASTM D5185m >5	<b>0</b>	<1	<1
Vanadium	ppm ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>6</b>	4	8
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>48</b>	65	67
Manganese	ppm ASTM D5185m 0	<b>0</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>829</b>	1020	940
Calcium	ppm ASTM D5185m 1070	<b>1052</b>	1141	1201
Phosphorus	ppm ASTM D5185m 1150	<b>872</b>	1131	1044
Zinc	ppm ASTM D5185m 1270	<b>1121</b>	1417	1351
Sulfur	ppm ASTM D5185m 2060	<b>2779</b>	3928	3645

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >35	<b>5</b>	8	8
Sodium	ppm ASTM D5185m	<b>2</b>	4	4
Potassium	ppm ASTM D5185m >20	<b>0</b>	6	2

## INFRA-RED

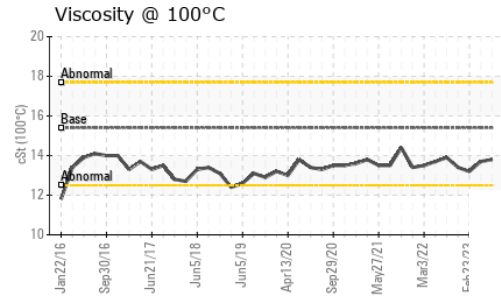
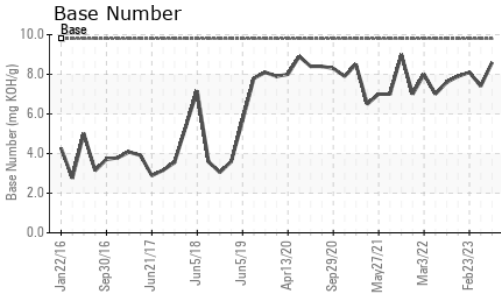
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >7.5	<b>0.6</b>	0.6	0.6
Nitration	Abs/cm *ASTM D7624 >20	<b>7.7</b>	10.2	7.6
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>19.7</b>	22.4	19.4

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>15.0</b>	19.8	14.3
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.6</b>	7.4	8.1



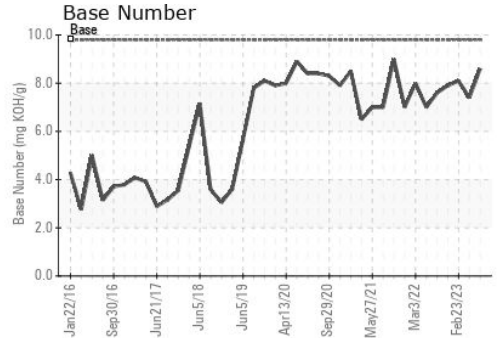
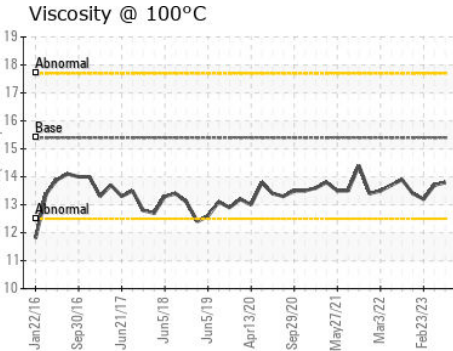
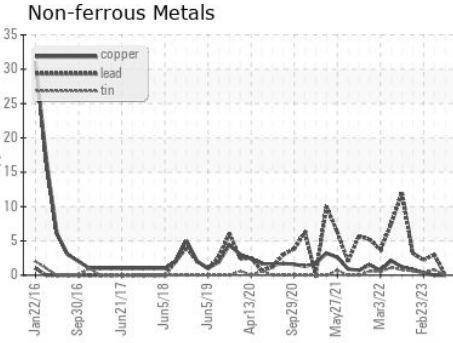
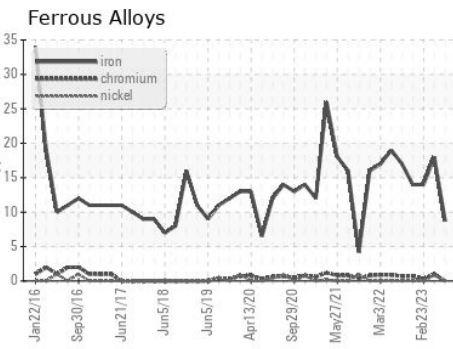
# OIL ANALYSIS REPORT



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>13.8</b>	13.7

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0102310  
 Lab Number : 06044580  
 Unique Number : 10805188  
 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:

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)