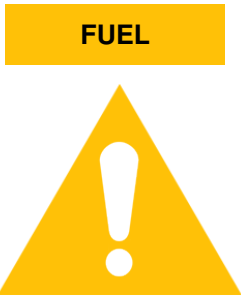
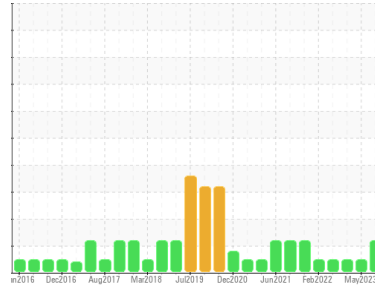




# PROBLEM SUMMARY

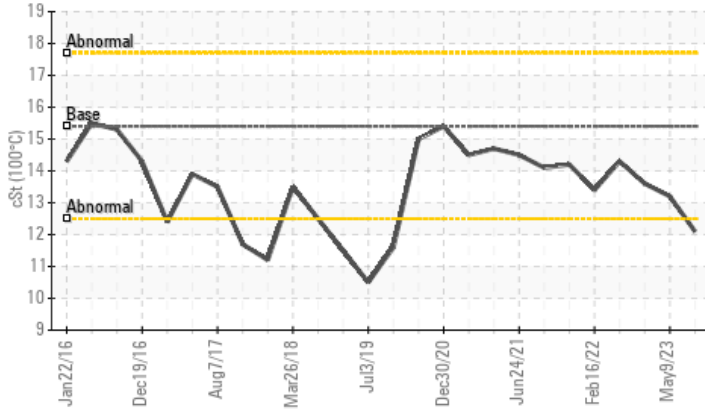
Sample Rating Trend



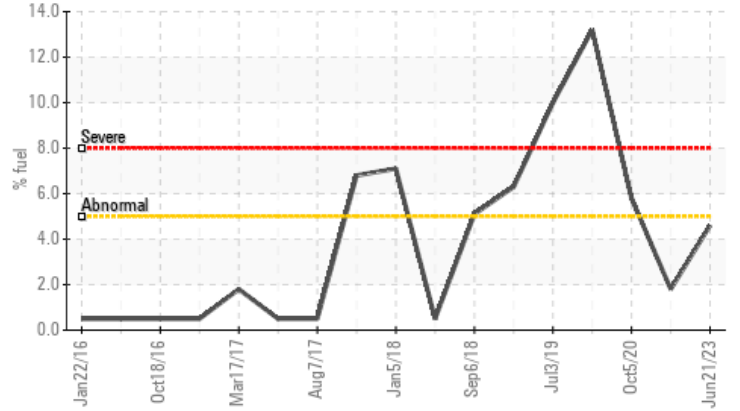
Machine Id  
**2629**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (30 GAL)**

## COMPONENT CONDITION SUMMARY

▲ Viscosity @ 100°C



▲ Fuel Dilution



## RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

## PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	NORMAL
Fuel	%	ASTM D3524	>5	▲ 4.6	<1.0	<1.0
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 12.1	13.2	13.6

Customer Id: GFL035  
 Sample No.: GFL0071553  
 Lab Number: 05888807  
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Wes Davis +1 905-569-8600 x223  
[wesd@wearcheck.ca](mailto:wesd@wearcheck.ca)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

## HISTORICAL DIAGNOSIS

### 09 May 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



### 29 Dec 2022 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



### 11 Nov 2022 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

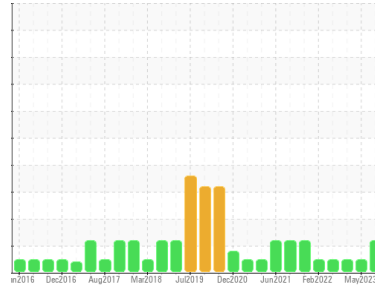
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id  
**2629**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON SHP 15W40 (30 GAL)**

## DIAGNOSIS

### Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

### Wear

All component wear rates are normal.

### Contamination

Light fuel dilution occurring. No other contaminants were detected 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	history 1	history 2
Sample Number	Client Info	<b>GFL0071553</b>	GFL0071539	GFL0061674
Sample Date	Client Info	<b>21 Jun 2023</b>	09 May 2023	29 Dec 2022
Machine Age	hrs	<b>16576</b>	16576	16576
Oil Age	hrs	<b>600</b>	600	600
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed
Sample Status		<b>ABNORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history 1	history 2
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history 1	history 2	
Iron	ppm	ASTM D5185m >100	<b>14</b>	19	21
Chromium	ppm	ASTM D5185m >20	<b>3</b>	2	2
Nickel	ppm	ASTM D5185m >4	<b>2</b>	2	<1
Titanium	ppm	ASTM D5185m	<b>2</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>1</b>	<1	0
Aluminum	ppm	ASTM D5185m >20	<b>6</b>	1	3
Lead	ppm	ASTM D5185m >40	<b>5</b>	2	<1
Copper	ppm	ASTM D5185m >330	<b>2</b>	<1	1
Tin	ppm	ASTM D5185m >15	<b>2</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>1</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>2</b>	0	0

## ADDITIVES

method	limit/base	current	history 1	history 2	
Boron	ppm	ASTM D5185m 0	<b>23</b>	4	13
Barium	ppm	ASTM D5185m 0	<b>18</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>49</b>	58	63
Manganese	ppm	ASTM D5185m 0	<b>2</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>633</b>	895	893
Calcium	ppm	ASTM D5185m 1070	<b>776</b>	977	1139
Phosphorus	ppm	ASTM D5185m 1150	<b>733</b>	986	1035
Zinc	ppm	ASTM D5185m 1270	<b>904</b>	1219	1160
Sulfur	ppm	ASTM D5185m 2060	<b>2580</b>	3516	3375

## CONTAMINANTS

method	limit/base	current	history 1	history 2	
Silicon	ppm	ASTM D5185m >25	<b>7</b>	7	9
Sodium	ppm	ASTM D5185m	<b>33</b>	5	8
Potassium	ppm	ASTM D5185m >20	<b>8</b>	3	0
Fuel	%	ASTM D3524 >5	<b>▲ 4.6</b>	<1.0	<1.0

## INFRA-RED

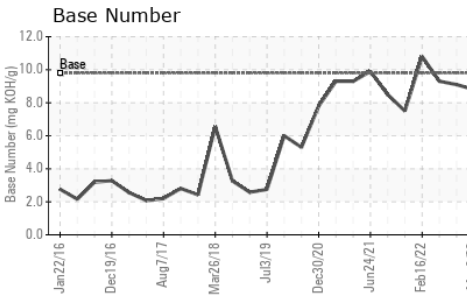
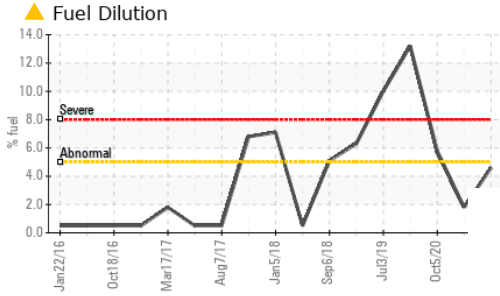
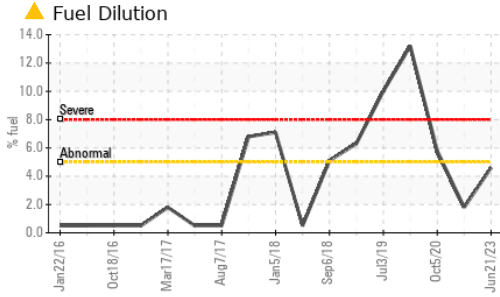
method	limit/base	current	history 1	history 2	
Soot %	%	*ASTM D7844 >3	<b>0.4</b>	0.5	0.5
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.0</b>	9.4	9.7
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.3</b>	20.4	21.0

## FLUID DEGRADATION

method	limit/base	current	history 1	history 2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.3</b>	17.7	17.8
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.8</b>	8.8	9.1



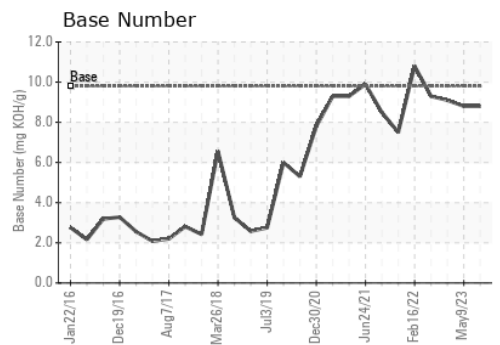
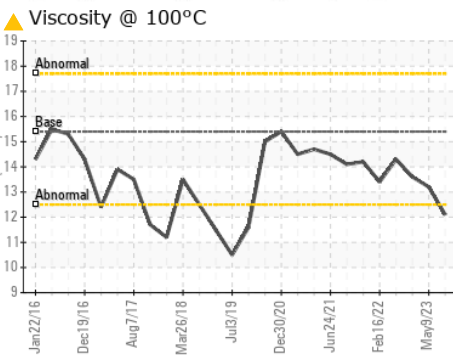
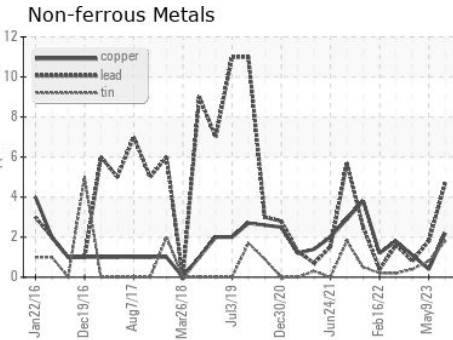
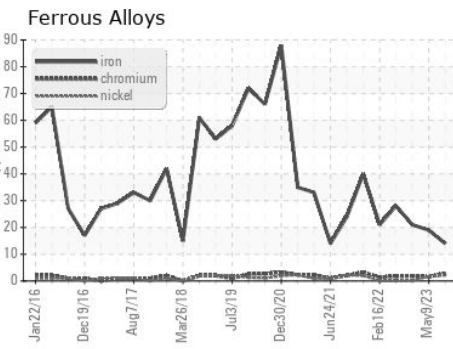
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2
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	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	15.4 ▲ 12.1	13.2	13.6

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0071553  
 Lab Number : 05888807  
 Unique Number : 10539290  
 Test Package : FLEET ( Additional Tests: FuelDilution, PercentFuel )

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)