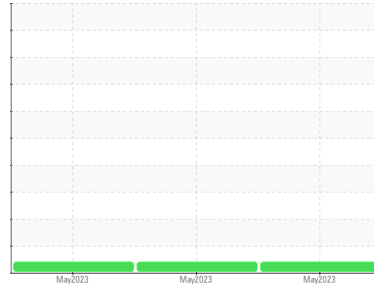




# PROBLEM SUMMARY

Sample Rating Trend



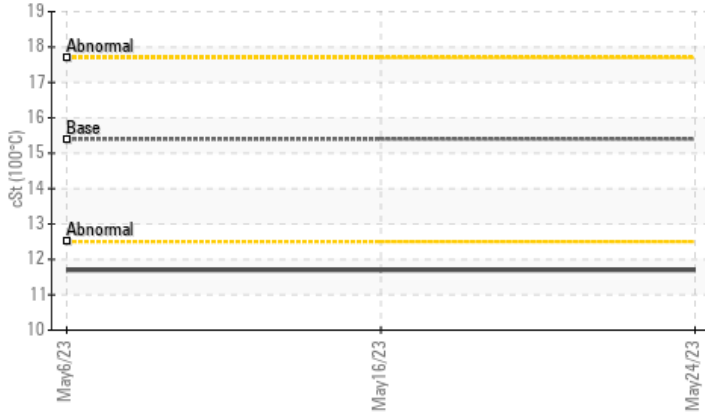
## VISCOSITY



Machine Id  
**713027**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

### COMPONENT CONDITION SUMMARY

#### ▲ Viscosity @ 100°C



### RECOMMENDATION

Resample at the next service interval to monitor.

### PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	ATTENTION	ATTENTION
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.7	▲ 11.7	▲ 11.7

Customer Id: GFL821  
 Sample No.: GFL0076799  
 Lab Number: 05861623  
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Sean Felton +1 919-379-4092  
[sfelton@wearcheckusa.com](mailto:sfelton@wearcheckusa.com)

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

## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

### 16 May 2023 Diag: Don Baldrige

#### VISCOSITY



Resample at the next service interval to monitor. All component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report



### 06 May 2023 Diag: Angela Borella

#### VISCOSITY



Resample at the next service interval to monitor. All component wear rates are normal. Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

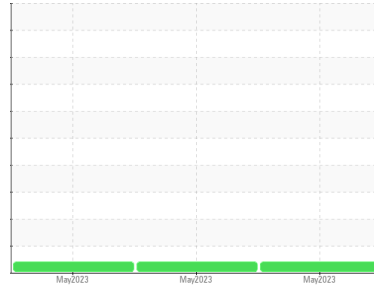
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



**VISCOSITY**



Machine Id  
**713027**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0076799</b>	GFL0076844	GFL0076820
Sample Date	Client Info	<b>24 May 2023</b>	16 May 2023	06 May 2023
Machine Age	hrs	<b>287</b>	139	157
Oil Age	hrs	<b>200</b>	139	157
Oil Changed	Client Info	<b>Not Changed</b>	N/A	Not Changed
Sample Status		<b>ATTENTION</b>	ATTENTION	ATTENTION

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<b>&lt;1.0</b>	0.8	0.7
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	<b>21</b>	15	15
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	0	<1
Nickel	ppm ASTM D5185m >4	<b>0</b>	0	<1
Titanium	ppm ASTM D5185m	<b>0</b>	0	0
Silver	ppm ASTM D5185m >3	<b>&lt;1</b>	0	<1
Aluminum	ppm ASTM D5185m >20	<b>3</b>	4	2
Lead	ppm ASTM D5185m >40	<b>0</b>	0	<1
Copper	ppm ASTM D5185m >330	<b>14</b>	14	13
Tin	ppm ASTM D5185m >15	<b>&lt;1</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>39</b>	49	42
Barium	ppm ASTM D5185m 0	<b>1</b>	0	1
Molybdenum	ppm ASTM D5185m 60	<b>46</b>	48	43
Manganese	ppm ASTM D5185m 0	<b>5</b>	4	5
Magnesium	ppm ASTM D5185m 1010	<b>857</b>	836	845
Calcium	ppm ASTM D5185m 1070	<b>1216</b>	1246	1202
Phosphorus	ppm ASTM D5185m 1150	<b>744</b>	726	752
Zinc	ppm ASTM D5185m 1270	<b>910</b>	889	921
Sulfur	ppm ASTM D5185m 2060	<b>2803</b>	2561	2908

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>12</b>	12	12
Sodium	ppm ASTM D5185m	<b>6</b>	9	5
Potassium	ppm ASTM D5185m >20	<b>4</b>	3	3

## INFRA-RED

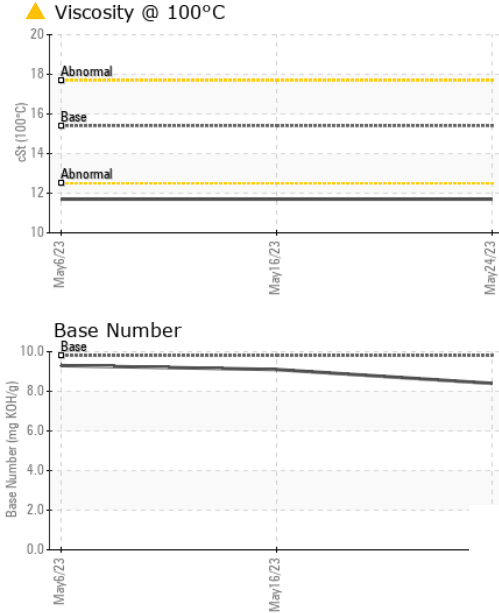
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.3</b>	0.2	0.2
Nitration	Abs/cm *ASTM D7624 >20	<b>10.3</b>	8.6	9.0
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>21.2</b>	21.0	21.0

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>20.3</b>	19.3	19.5
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.4</b>	9.1	9.3



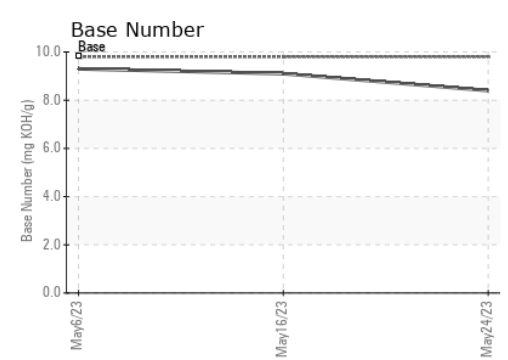
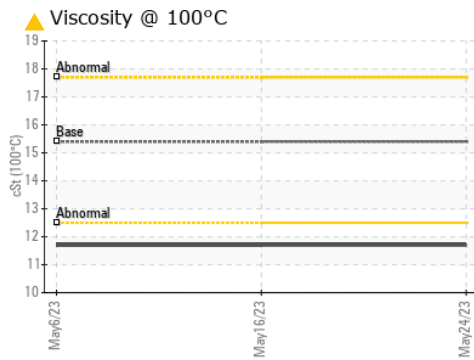
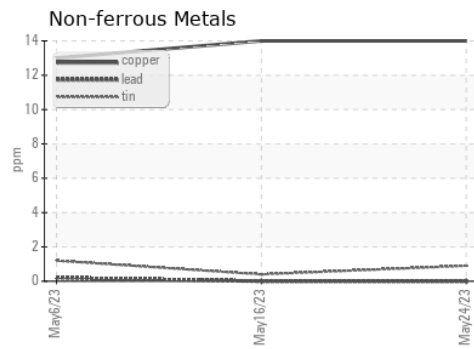
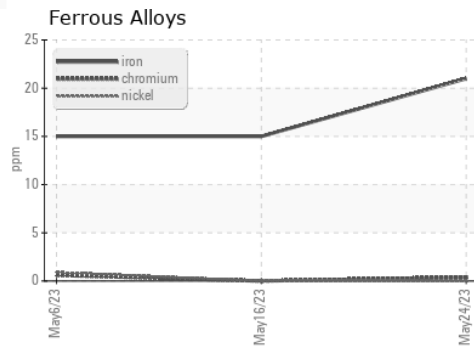
# OIL ANALYSIS REPORT



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	▲ 11.7	▲ 11.7

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0076799 **Received** : 01 Jun 2023  
**Lab Number** : 05861623 **Diagnosed** : 02 Jun 2023  
**Unique Number** : 10496088 **Diagnostician** : Sean Felton  
**Test Package** : FLEET

**GFL Environmental - 821 - Ozarks Hauling**  
 33924 Olath Drive  
 Lebanon, MO  
 US 65536  
 Contact: Landen Johnson  
 landen.johnson@gflenv.com  
 T: (417)664-0010  
 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)