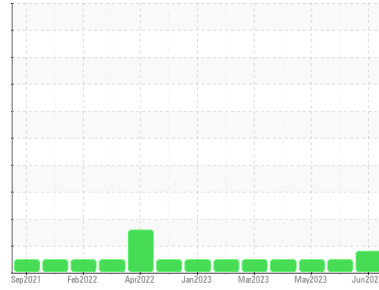




# PROBLEM SUMMARY

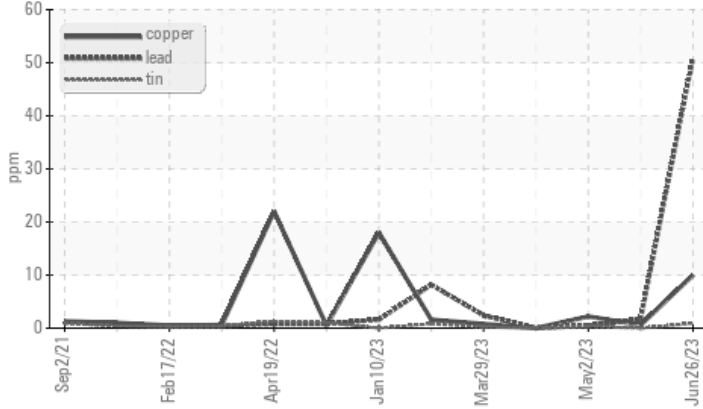
Sample Rating Trend



Machine Id  
**741004-310093**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Non-ferrous Metals



## RECOMMENDATION

No corrective action is recommended at this time.  
 Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	NORMAL
Lead	ppm	ASTM D5185m	>45	▲ 51	2	<1

Customer Id: GFL856  
 Sample No.: GFL0084597  
 Lab Number: 05887355  
 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

### 19 Jun 2023 Diag: Don Baldrige

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



### 02 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



### 24 Apr 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.

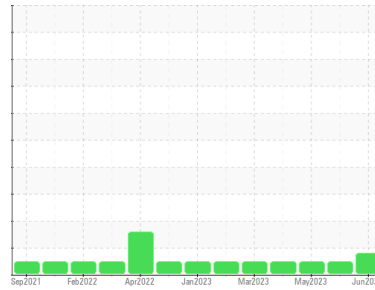
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Machine Id  
**741004-310093**

Component  
**Diesel Engine**

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

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

The lead level is abnormal. All other 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 acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number	Client Info		<b>GFL0084597</b>	GFL0084743	GFL0078191
Sample Date	Client Info		<b>26 Jun 2023</b>	19 Jun 2023	02 May 2023
Machine Age	mls	Client Info	<b>0</b>	76709	118114
Oil Age	mls	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Changed
Sample Status			<b>ABNORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history 1	history 2
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	history 1	history 2
Iron	ppm	ASTM D5185m >110	<b>13</b>	9	10
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>1</b>	1	<1
Lead	ppm	ASTM D5185m >45	<b>▲ 51</b>	2	<1
Copper	ppm	ASTM D5185m >85	<b>10</b>	<1	2
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m 0	<b>17</b>	14	16
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>55</b>	54	55
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>590</b>	638	620
Calcium	ppm	ASTM D5185m 1070	<b>1669</b>	1763	1741
Phosphorus	ppm	ASTM D5185m 1150	<b>771</b>	786	789
Zinc	ppm	ASTM D5185m 1270	<b>984</b>	1033	1043
Sulfur	ppm	ASTM D5185m 2060	<b>2585</b>	2929	2822

## CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >30	<b>6</b>	4	4
Sodium	ppm	ASTM D5185m	<b>8</b>	6	6
Potassium	ppm	ASTM D5185m >20	<b>1</b>	<1	0

## INFRA-RED

	method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844 >3	<b>0.1</b>	0.1	0
Nitration	Abs/cm	*ASTM D7624 >20	<b>11.7</b>	10.8	9.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>23.2</b>	20.8	20.7

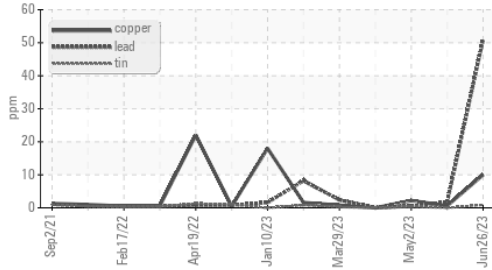
## FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>23.4</b>	18.3	18.2
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>6.6</b>	6.8	5.2

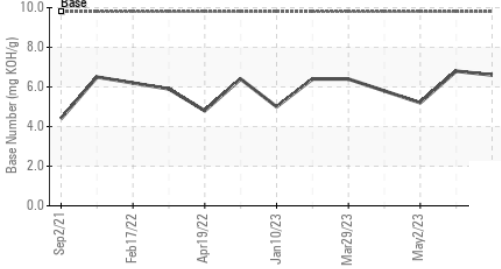


# OIL ANALYSIS REPORT

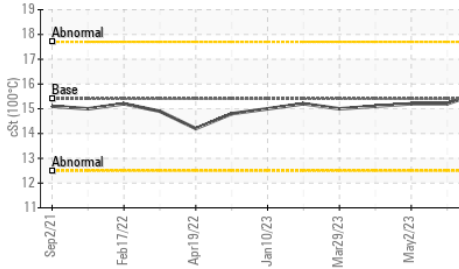
## ▲ Non-ferrous Metals



## Base Number



## Viscosity @ 100°C

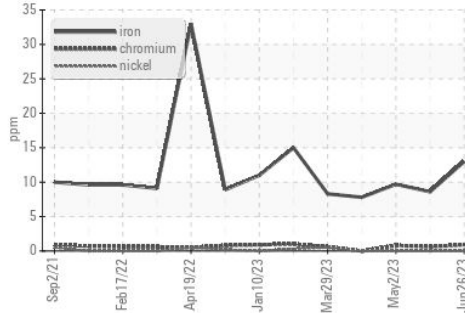


VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

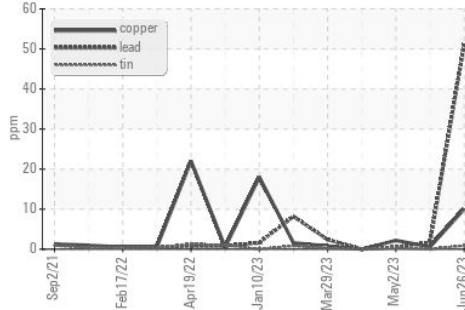
FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	15.4	15.2	15.2

## GRAPHS

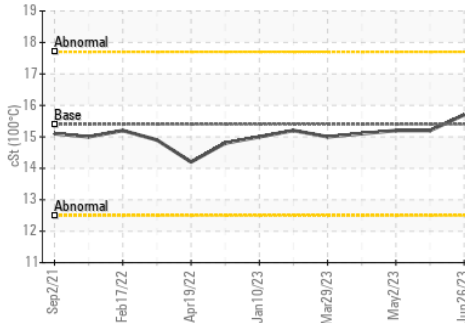
### Ferrous Alloys



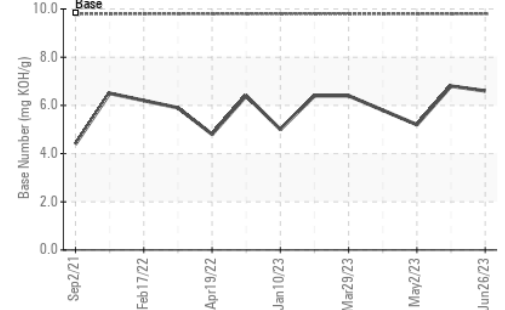
## ▲ Non-ferrous Metals



## Viscosity @ 100°C



## Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0084597 **Received** : 29 Jun 2023  
**Lab Number** : 05887355 **Diagnosed** : 05 Jul 2023  
**Unique Number** : 10537838 **Diagnostician** : Sean Felton  
**Test Package** : FLEET

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)

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