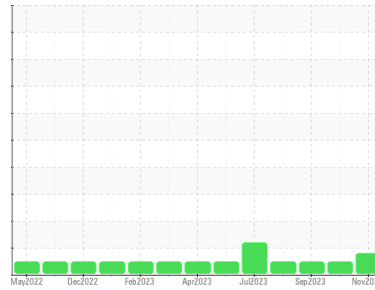




# PROBLEM SUMMARY

Sample Rating Trend



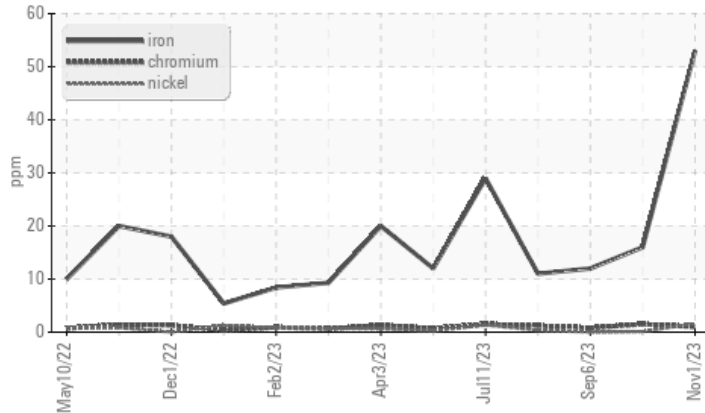
Machine Id  
**731112-310100**

Component  
**Natural Gas Engine**

Fluid  
**PETRO CANADA DURON GEO LD 15W40 (--- GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Ferrous Alloys



## 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
Iron	ppm	ASTM D5185m	>50	▲ 53	16	12

Customer Id: GFL836  
Sample No.: GFL0095159  
Lab Number: 06000305  
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

### 03 Oct 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



### 06 Sep 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



### 14 Aug 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.

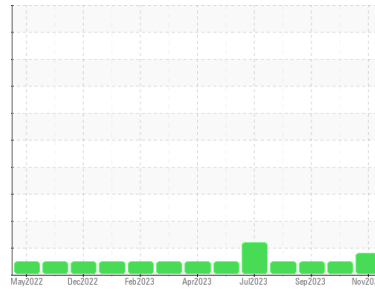
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Machine Id  
**731112-310100**

Component  
**Natural Gas Engine**

Fluid  
**PETRO CANADA DURON GEO LD 15W40 (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

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

### ▲ Wear

Cylinder, crank, or cam shaft wear is indicated.

### 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>GFL0095159</b>	GFL0095110	GFL0090655
Sample Date	Client Info		<b>01 Nov 2023</b>	03 Oct 2023	06 Sep 2023
Machine Age	hrs	Client Info	<b>5686</b>	5483	5280
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Sample Status			<b>ABNORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>▲ 53</b>	16	12
Chromium	ppm	ASTM D5185m >4	<b>1</b>	2	<1
Nickel	ppm	ASTM D5185m >2	<b>2</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m >9	<b>3</b>	4	<1
Lead	ppm	ASTM D5185m >30	<b>1</b>	4	1
Copper	ppm	ASTM D5185m >35	<b>18</b>	2	1
Tin	ppm	ASTM D5185m >4	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	<b>11</b>	7	11
Barium	ppm	ASTM D5185m 5	<b>9</b>	0	0
Molybdenum	ppm	ASTM D5185m 50	<b>53</b>	61	56
Manganese	ppm	ASTM D5185m 0	<b>13</b>	<1	<1
Magnesium	ppm	ASTM D5185m 560	<b>703</b>	581	584
Calcium	ppm	ASTM D5185m 1510	<b>1203</b>	1686	1733
Phosphorus	ppm	ASTM D5185m 780	<b>651</b>	748	718
Zinc	ppm	ASTM D5185m 870	<b>856</b>	1020	981
Sulfur	ppm	ASTM D5185m 2040	<b>2269</b>	2786	2854

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	<b>38</b>	6	5
Sodium	ppm	ASTM D5185m	<b>1</b>	9	6
Potassium	ppm	ASTM D5185m >20	<b>5</b>	1	0

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0</b>	0	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>12.2</b>	11.0	10.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>22.8</b>	23.6	21.1

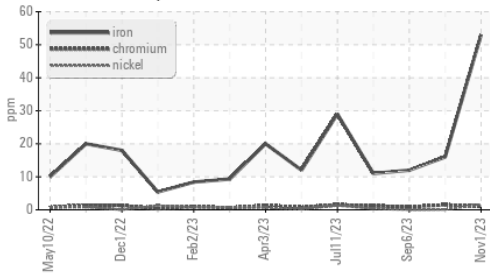
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>21.0</b>	19.5	17.6
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>3.9</b>	3.4	4.6

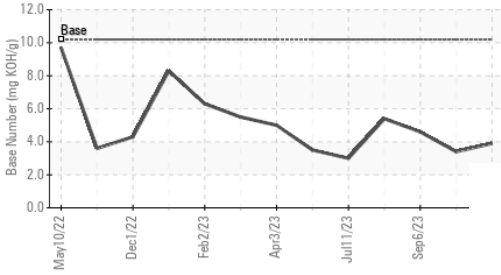


# OIL ANALYSIS REPORT

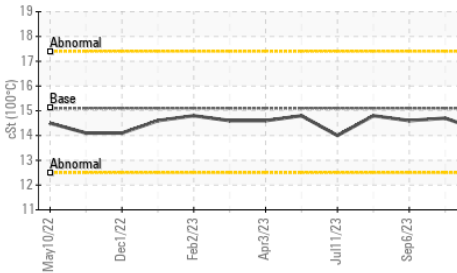
## ▲ Ferrous Alloys



## Base Number



## Viscosity @ 100°C

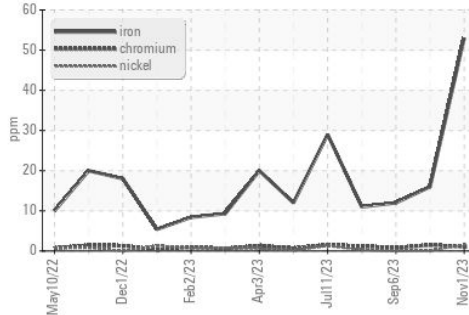


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

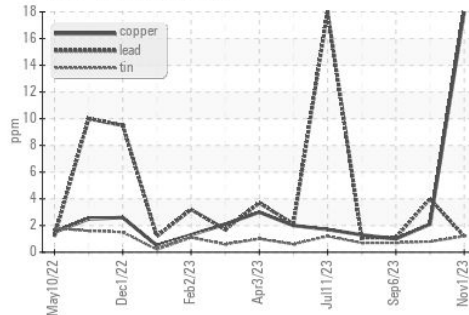
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.2	14.7

## GRAPHS

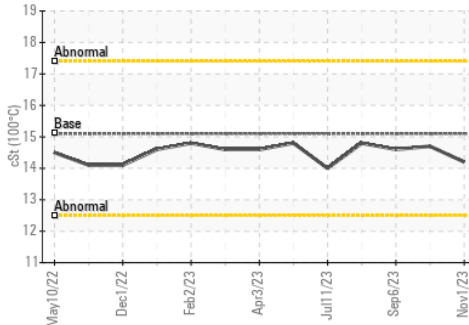
### ▲ Ferrous Alloys



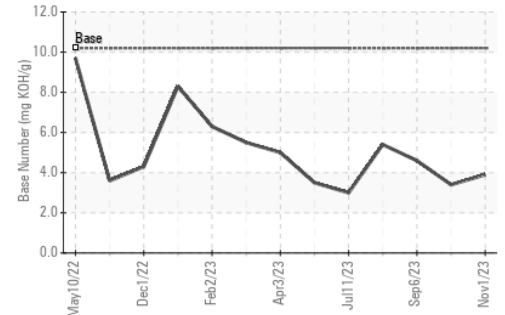
### Non-ferrous Metals



### Viscosity @ 100°C



### Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0095159  
 Lab Number : 06000305  
 Unique Number : 10728665  
 Test Package : FLEET

Received : 07 Nov 2023  
 Diagnosed : 08 Nov 2023  
 Diagnostician : Sean Felton

GFL Environmental - 836 - Kansas City Hauling  
 7801 East Truman Road  
 Kansas City, MO  
 US 64126  
 Contact: Robert Hart  
 rhart@gflenv.com  
 T: (580)461-1509  
 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)