



# PROBLEM SUMMARY

Sample Rating Trend

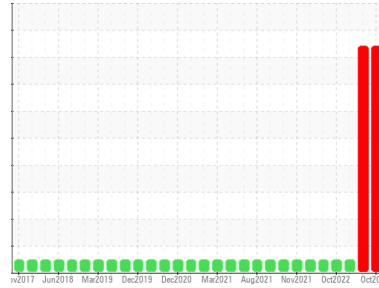
GLYCOL



Machine Id  
**2677C**

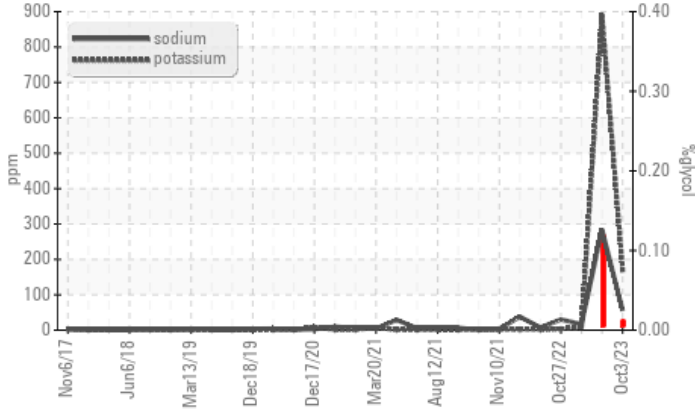
Component  
**Natural Gas Engine**

Fluid  
**PETRO CANADA DURON GEO LD 15W40 (40 QTS)**



## COMPONENT CONDITION SUMMARY

### Glycol Contamination



## RECOMMENDATION

We advise that you check for the source of the coolant leak. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	SEVERE	NORMAL
Sodium	ppm	ASTM D5185m		▲ 56	▲ 284	17
Potassium	ppm	ASTM D5185m	>20	▲ 173	▲ 892	7
Glycol	%	*ASTM D2982		● 0.012	● 0.12	---

Customer Id: GFL030  
Sample No.: GFL0090114  
Lab Number: 05970162  
Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Doug Bogart +1 (800)237-1369 x4016  
[dougb@wearcheckusa.com](mailto:dougb@wearcheckusa.com)

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
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Glycol Access	---	---	?	We advise that you check for the source of the coolant leak.

## HISTORICAL DIAGNOSIS

### 18 May 2023 Diag: Don Baldrige

#### GLYCOL



We advise that you check for the source of the coolant leak. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. Test for glycol is positive. There is a high concentration of glycol present in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

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### 26 Jan 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](#)



### 27 Oct 2022 Diag: Angela Borella

#### 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.

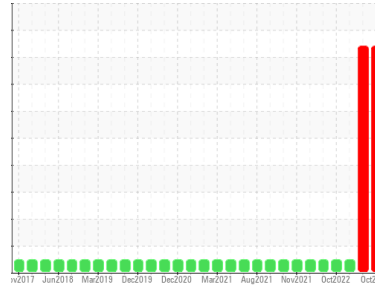
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# OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id  
**2677C**

Component  
**Natural Gas Engine**

Fluid  
**PETRO CANADA DURON GEO LD 15W40 (40 QTS)**

## DIAGNOSIS

### Recommendation

We advise that you check for the source of the coolant leak. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

Test for glycol is positive. There is a high concentration of glycol present in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0090114</b>	GFL0070764	GFL0049148
Sample Date	Client Info		<b>03 Oct 2023</b>	18 May 2023	26 Jan 2023
Machine Age	hrs	Client Info	<b>13526</b>	12585	11818
Oil Age	hrs	Client Info	<b>600</b>	600	600
Oil Changed		Client Info	<b>Changed</b>	Changed	Changed
Sample Status			<b>SEVERE</b>	SEVERE	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>6</b>	9	6
Chromium	ppm	ASTM D5185m >4	<b>2</b>	1	<1
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >9	<b>3</b>	4	1
Lead	ppm	ASTM D5185m >30	<b>2</b>	<1	<1
Copper	ppm	ASTM D5185m >35	<b>&lt;1</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	history1	history2
Boron	ppm	ASTM D5185m 50	<b>8</b>	14	11
Barium	ppm	ASTM D5185m 5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 50	<b>50</b>	56	49
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m 560	<b>563</b>	435	476
Calcium	ppm	ASTM D5185m 1510	<b>1594</b>	1559	1584
Phosphorus	ppm	ASTM D5185m 780	<b>652</b>	601	583
Zinc	ppm	ASTM D5185m 870	<b>951</b>	855	860
Sulfur	ppm	ASTM D5185m 2040	<b>2343</b>	2215	2330

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	<b>10</b>	20	19
Sodium	ppm	ASTM D5185m	<b>▲ 56</b>	▲ 284	17
Potassium	ppm	ASTM D5185m >20	<b>▲ 173</b>	▲ 892	7
Glycol	%	*ASTM D2982	<b>● 0.012</b>	● 0.12	---

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>11.5</b>	12.3	10.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>23.9</b>	22.4	21.5

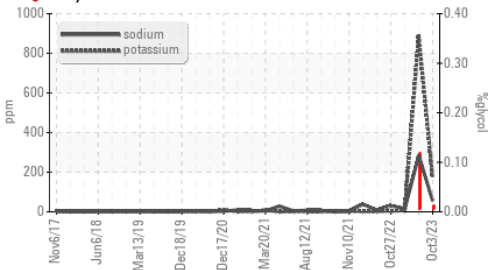
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>20.8</b>	18.3	18.5
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>3.9</b>	6.3	5.0



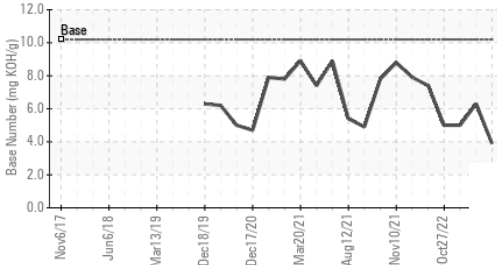
# OIL ANALYSIS REPORT

### Glycol Contamination



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

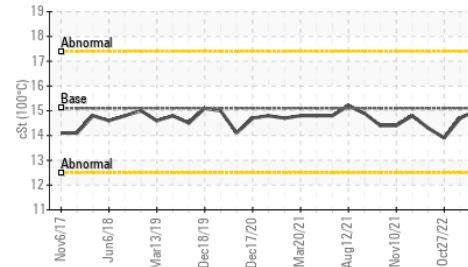
### Base Number



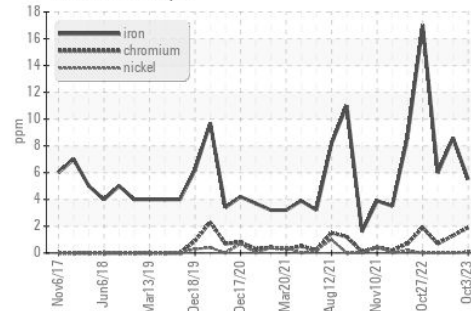
FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.1	14.7	15.0	14.7

### GRAPHS

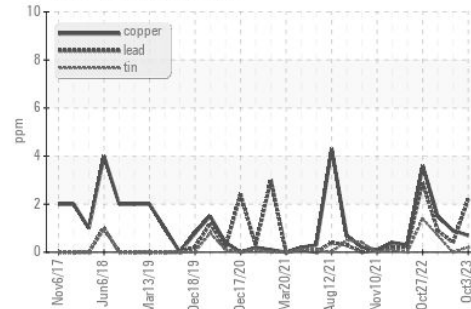
### Viscosity @ 100°C



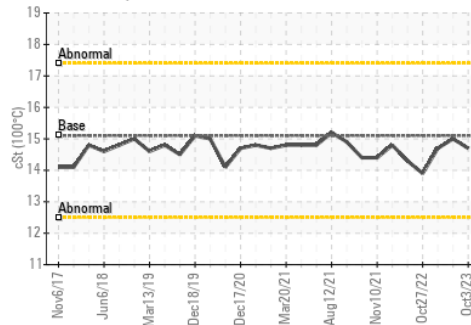
### Ferrous Alloys



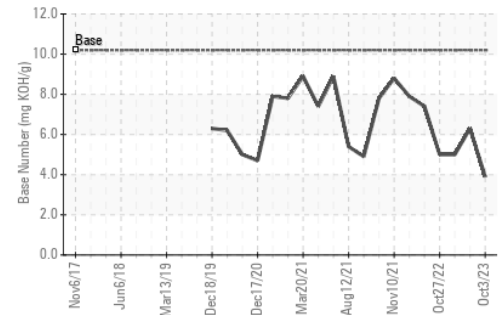
### Non-ferrous Metals



### Viscosity @ 100°C



### Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0090114 **Received** : 05 Oct 2023  
**Lab Number** : 05970162 **Diagnosed** : 12 Oct 2023  
**Unique Number** : 10682112 **Diagnostician** : Doug Bogart  
**Test Package** : FLEET

**GFL Environmental - 030 - Conway Myrtle Beach**  
 3010 HWY 378  
 Conway, SC  
 US 29527  
**Contact: CHET STROSCHINE**  
 cstroschine@gflenv.com

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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