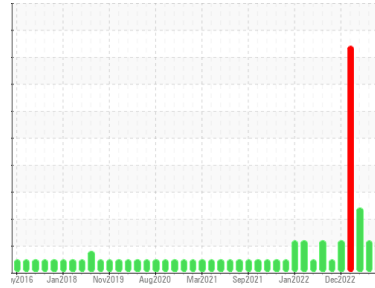




# PROBLEM SUMMARY

Sample Rating Trend



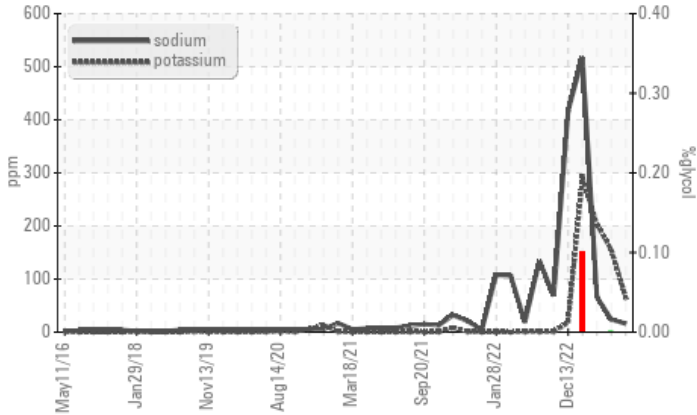
COOL CHEMICALS



Machine Id  
**3662C**  
 Component  
**Natural Gas Engine**  
 Fluid  
**PETRO CANADA DURON GEO LD 15W40 (28 GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Glycol Contamination



## RECOMMENDATION

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

## PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	ABNORMAL	ABNORMAL
Potassium	ppm	ASTM D5185m	>20	▲ 66	▲ 155	▲ 203

Customer Id: GFL017  
 Sample No.: GFL0079607  
 Lab Number: 05920062  
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Jonathan Hester +1 919-379-4092 x4092  
[jhester@wearcheckusa.com](mailto:jhester@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 Aug 2023 Diag: Jonathan Hester

#### COOL CHEMICALS



We advise that you check for possible coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition. All component wear rates are normal. Sodium and/or potassium levels remain high. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report



### 22 May 2023 Diag: Jonathan Hester

#### COOL CHEMICALS



We advise that you check for possible coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition. All component wear rates are normal. Sodium and/or potassium levels remain high. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report



### 28 Feb 2023 Diag: Doug Bogart

#### GLYCOL



We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition. All component wear rates are normal. Sodium and/or potassium levels are high. Test for glycol is positive. 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.

view report





# OIL ANALYSIS REPORT

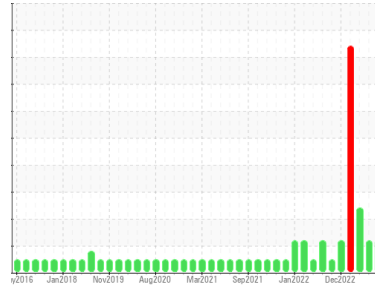
Sample Rating Trend

COOL CHEMICALS

Machine Id  
**3662C**

Component  
**Natural Gas Engine**

Fluid  
**PETRO CANADA DURON GEO LD 15W40 (28 GAL)**



## DIAGNOSIS

### Recommendation

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

### Wear

All component wear rates are normal.

### Contamination

Sodium and/or potassium levels remain elevated. Test for glycol is negative.

### 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>GFL0079607</b>	GFL0088560	GFL0083316	
Sample Date	Client Info	<b>08 Aug 2023</b>	03 Aug 2023	22 May 2023	
Machine Age	hrs	Client Info	22937	22937	
Oil Age	hrs	Client Info	<b>533</b>	533	580
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A	
Sample Status		<b>ATTENTION</b>	ABNORMAL	ABNORMAL	

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	<b>4</b>	13	10
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	1	4
Nickel	ppm	ASTM D5185m >2	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m >9	<b>1</b>	1	0
Lead	ppm	ASTM D5185m >30	<b>&lt;1</b>	0	2
Copper	ppm	ASTM D5185m >35	<b>2</b>	2	18
Tin	ppm	ASTM D5185m >4	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	<1	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 50	<b>35</b>	29	28
Barium	ppm	ASTM D5185m 5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 50	<b>51</b>	48	53
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 560	<b>530</b>	588	579
Calcium	ppm	ASTM D5185m 1510	<b>1504</b>	1576	1677
Phosphorus	ppm	ASTM D5185m 780	<b>763</b>	798	773
Zinc	ppm	ASTM D5185m 870	<b>895</b>	986	976
Sulfur	ppm	ASTM D5185m 2040	<b>2326</b>	2983	2803

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >+100	<b>7</b>	16	6
Sodium	ppm	ASTM D5185m	<b>16</b>	24	▲ 66
Potassium	ppm	ASTM D5185m >20	▲ <b>66</b>	▲ 155	▲ 203
Glycol	%	*ASTM D2982	<b>---</b>	0.0	---

## INFRA-RED

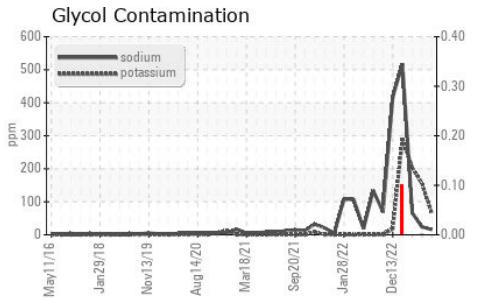
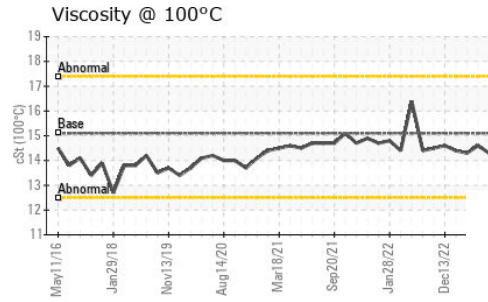
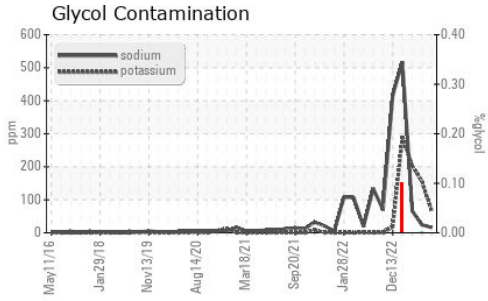
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	<b>0</b>	0.1	0
Nitration	Abs/cm	*ASTM D7624 >20	<b>5.9</b>	8.2	8.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.4</b>	17.7	19.6

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.9</b>	15.9	16.0
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>8.9</b>	13.3	9.0



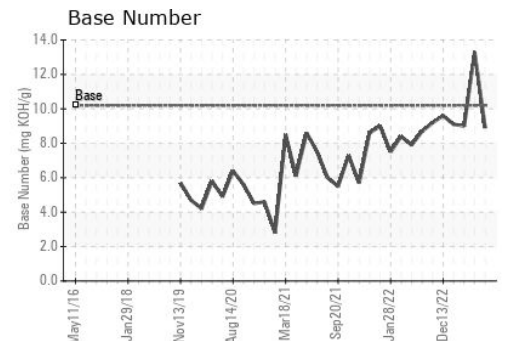
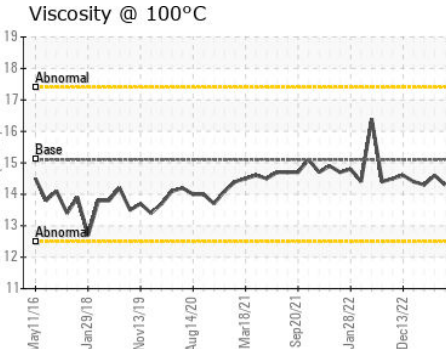
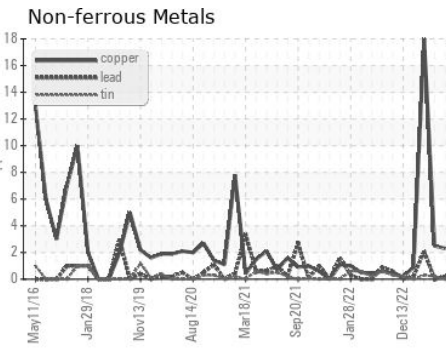
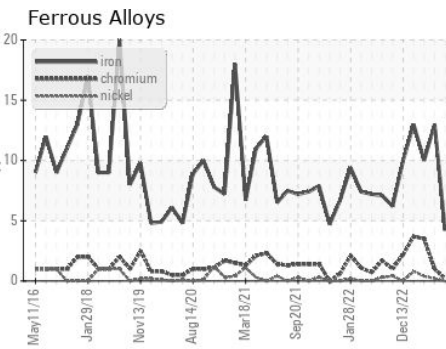
# OIL ANALYSIS REPORT



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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.3	14.6

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0079607 **Received** : 09 Aug 2023  
**Lab Number** : 05920062 **Diagnosed** : 11 Aug 2023  
**Unique Number** : 10591976 **Diagnostician** : Jonathan Hester  
**Test Package** : FLEET ( Additional Tests: Glycol )

**GFL Environmental - 017 - Durham**  
 148 Stone Park Court  
 Durham, NC  
 US 27703  
 Contact: Shane Parks  
 shane.parks@gflenv.com  
 T: (919)596-1363  
 F: (919)598-1852

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)