



# PROBLEM SUMMARY

Sample Rating Trend

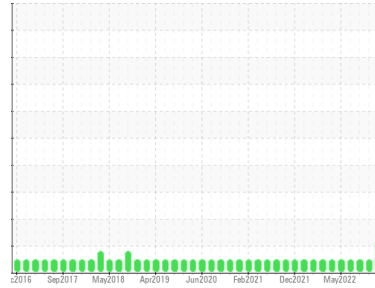
COOL CHEMICALS



Machine Id  
**3582C AUTOCAR**

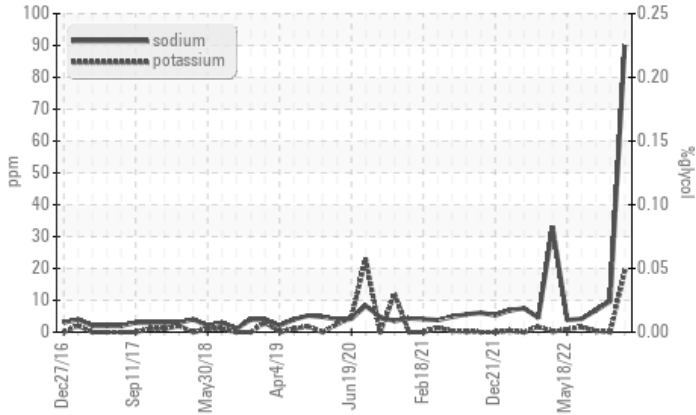
Component  
**Natural Gas Engine**

Fluid  
**PETRO CANADA DURON GEO LD 15W40 (48 QTS)**



## 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	NORMAL	NORMAL
Sodium	ppm	ASTM D5185m	▲ 90	10	7

Customer Id: GFL001  
Sample No.: GFL0087122  
Lab Number: 05902174  
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

**05 Jan 2023 Diag: Jonathan Hester**

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



**16 Aug 2022 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



**17 Jun 2022 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 acceptable for the time in service.

view report





# OIL ANALYSIS REPORT

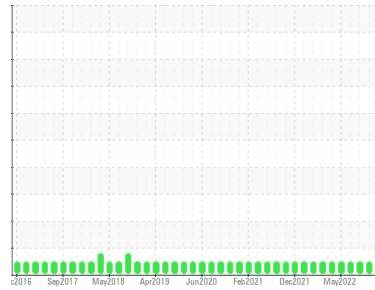
Sample Rating Trend

COOL CHEMICALS

Machine Id  
**3582C AUTOCAR**

Component  
**Natural Gas Engine**

Fluid  
**PETRO CANADA DURON GEO LD 15W40 (48 QTS)**



## 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 are high. 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>GFL0087122</b>	GFL0056666	GFL0052329
Sample Date	Client Info	<b>17 Jul 2023</b>	05 Jan 2023	16 Aug 2022
Machine Age	hrs	<b>9840</b>	8538	7391
Oil Age	hrs	<b>0</b>	1213	495
Oil Changed	Client Info	<b>N/A</b>	Changed	Changed
Sample Status		<b>ATTENTION</b>	NORMAL	NORMAL

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	<b>22</b>	14	11
Chromium	ppm	ASTM D5185m >4	<b>4</b>	2	2
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >9	<b>8</b>	6	4
Lead	ppm	ASTM D5185m >30	<b>1</b>	<1	1
Copper	ppm	ASTM D5185m >35	<b>2</b>	<1	<1
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	<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>18</b>	11	17
Barium	ppm	ASTM D5185m 5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 50	<b>57</b>	53	52
Manganese	ppm	ASTM D5185m 0	<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 560	<b>607</b>	536	574
Calcium	ppm	ASTM D5185m 1510	<b>1729</b>	1633	1625
Phosphorus	ppm	ASTM D5185m 780	<b>831</b>	731	784
Zinc	ppm	ASTM D5185m 870	<b>1013</b>	945	992
Sulfur	ppm	ASTM D5185m 2040	<b>3040</b>	2846	2610

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >+100	<b>15</b>	6	12
Sodium	ppm	ASTM D5185m	<b>▲ 90</b>	10	7
Potassium	ppm	ASTM D5185m >20	<b>19</b>	0	<1

## INFRA-RED

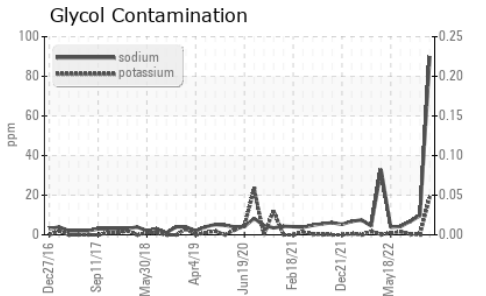
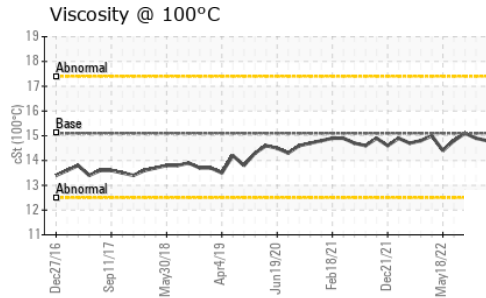
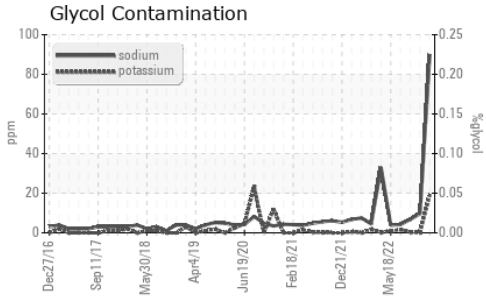
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	<b>0</b>	0.1	0
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.6</b>	10.7	10.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>21.2</b>	21.6	20.9

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>17.2</b>	17.6	18.0
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>6.5</b>	4.7	7.0



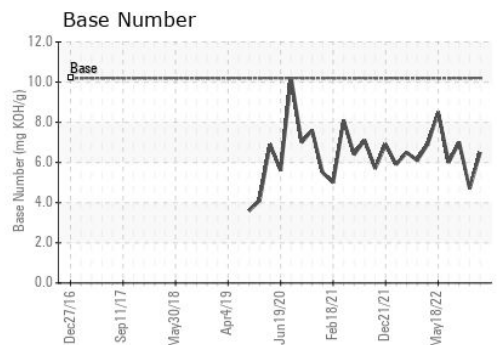
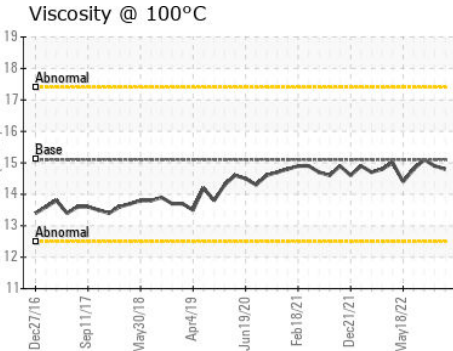
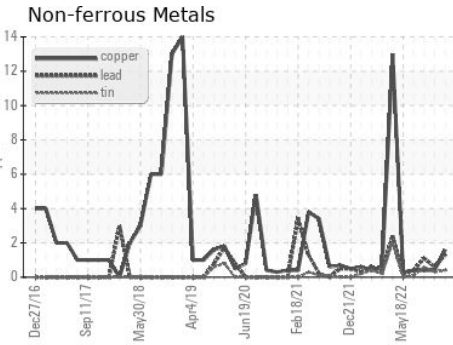
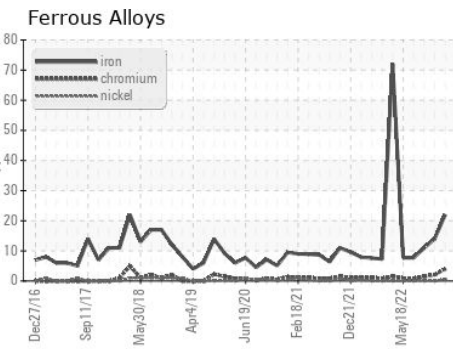
# OIL ANALYSIS REPORT



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	14.8	14.9

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0087122 **Received** : 19 Jul 2023  
**Lab Number** : 05902174 **Diagnosed** : 21 Jul 2023  
**Unique Number** : 10563530 **Diagnostician** : Jonathan Hester  
**Test Package** : FLEET ( Additional Tests: Glycol )

**GFL Environmental - 001 - Raleigh(CNG)**  
 3741 Conquest Drive  
 Garner, NC  
 US 27529  
 Contact: Craig Johnson  
 craig.johnson@gflenv.com  
 T: (919)662-7100  
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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)