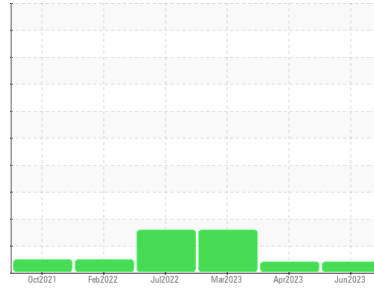




# PROBLEM SUMMARY

Area  
**[423049]**  
 Machine Id  
**943004-260284**  
 Component  
**Natural Gas Engine**  
 Fluid  
**PETRO CANADA DURON GEO LD 15W40 (--- GAL)**

Sample Rating Trend

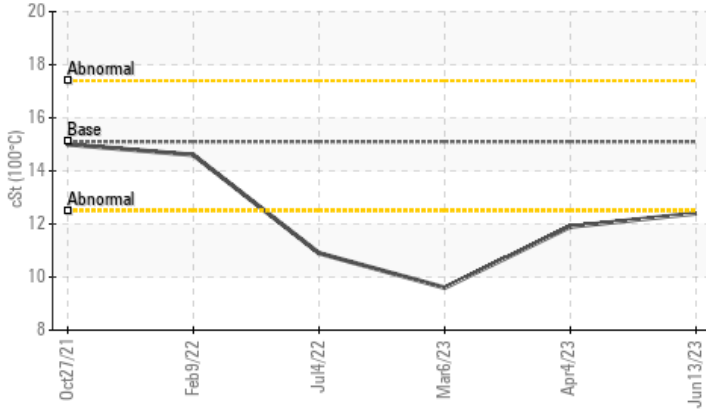


## VISCOSITY



### COMPONENT CONDITION SUMMARY

▲ Viscosity @ 100°C



### RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

### PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	ATTENTION	ABNORMAL
Visc @ 100°C	cSt	ASTM D445	15.1	▲ 12.4	▲ 11.9	▲ 9.6

Customer Id: GFL865  
 Sample No.: GFL0083486  
 Lab Number: 05881868  
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

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.

## HISTORICAL DIAGNOSIS

### 04 Apr 2023 Diag: Don Baldrige

#### VISCOSITY



Oil and filter change at the time of sampling has been noted. 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

[view report](#)



### 06 Mar 2023 Diag: Doug Bogart

#### DEGRADATION



Oil and filter change at the time of sampling has been noted. 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 oil viscosity is lower than normal. The BN level is low. Confirm oil type.

[view report](#)



### 04 Jul 2022 Diag: Jonathan Hester

#### DEGRADATION



No corrective action is recommended at this time. 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 oil viscosity is lower than normal. The BN level is low. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

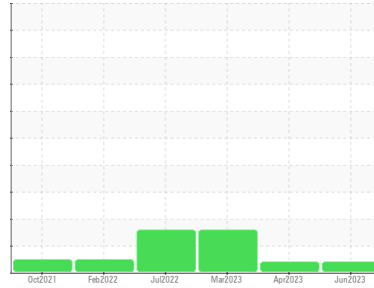
[view report](#)





# OIL ANALYSIS REPORT

Sample Rating Trend



## VISCOSITY



Area  
**[423049]**  
 Machine Id  
**943004-260284**  
 Component  
**Natural Gas Engine**  
 Fluid  
**PETRO CANADA DURON GEO LD 15W40 (--- GAL)**

### DIAGNOSIS

#### ▲ Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

#### ▲ Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

### SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0083486</b>	GFL0065138	GFL0074146
Sample Date	Client Info	<b>13 Jun 2023</b>	04 Apr 2023	06 Mar 2023
Machine Age	hrs	<b>577</b>	27283	27093
Oil Age	hrs	<b>577</b>	27283	27093
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed
Sample Status		<b>ATTENTION</b>	ATTENTION	ABNORMAL

### WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	<b>7</b>	4	15
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >9	<b>2</b>	3	6
Lead	ppm	ASTM D5185m >30	<b>0</b>	0	1
Copper	ppm	ASTM D5185m >35	<b>&lt;1</b>	0	1
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>25</b>	25	21
Barium	ppm	ASTM D5185m 5	<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m 50	<b>38</b>	33	23
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 560	<b>507</b>	352	264
Calcium	ppm	ASTM D5185m 1510	<b>1194</b>	1078	719
Phosphorus	ppm	ASTM D5185m 780	<b>700</b>	518	460
Zinc	ppm	ASTM D5185m 870	<b>791</b>	576	443
Sulfur	ppm	ASTM D5185m 2040	<b>2734</b>	1707	1898

### CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >+100	<b>4</b>	4	5
Sodium	ppm	ASTM D5185m	<b>3</b>	5	3
Potassium	ppm	ASTM D5185m >20	<b>2</b>	0	2

### INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.4</b>	7.6	7.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>21.9</b>	21.8	27.0

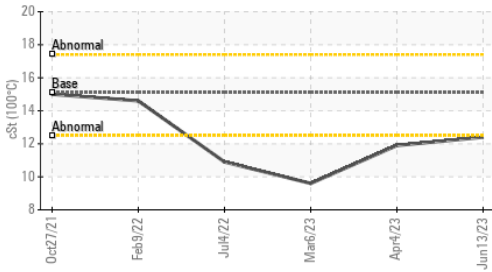
### FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>22.0</b>	21.7	30.9
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>5.3</b>	4.9	▲ 2.3

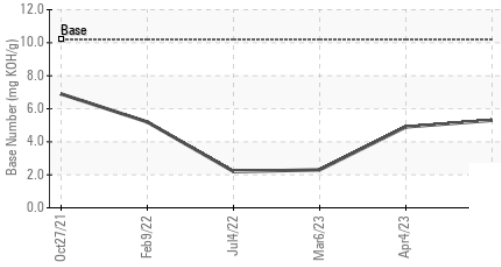


# OIL ANALYSIS REPORT

▲ Viscosity @ 100°C



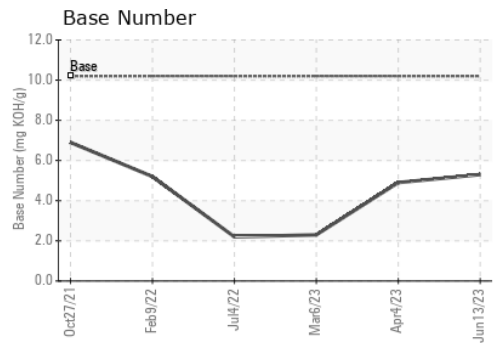
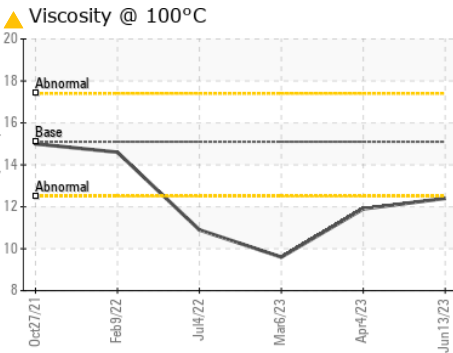
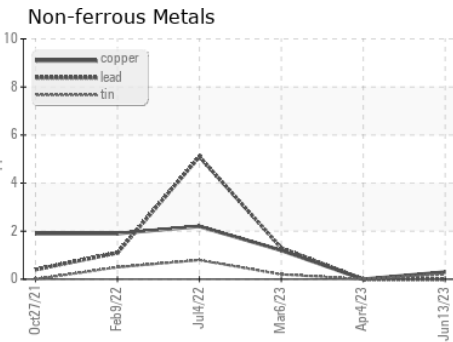
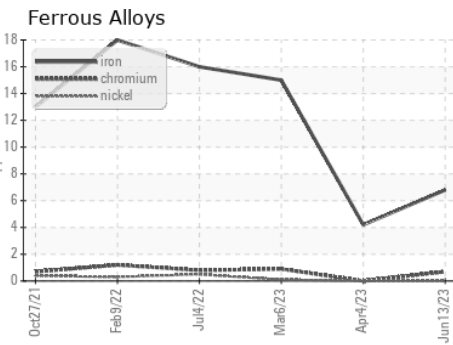
Base Number



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	▲ 12.4	▲ 11.9	▲ 9.6

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0083486 **Received** : 23 Jun 2023  
**Lab Number** : 05881868 **Diagnosed** : 27 Jun 2023  
**Unique Number** : 10532351 **Diagnostician** : Don Baldrige  
**Test Package** : FLEET

**GFL Environmental - 865 - East Mount Hauling**  
 7213 East Mount Houston Road  
 Houston, TX  
 US 77050  
 Contact: Saul Castillo  
 saul.castillo@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)

T:  
F: