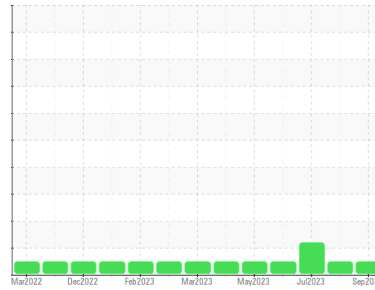




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**731123**

Component  
**Natural Gas Engine**

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

## DIAGNOSIS

### Recommendation

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 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>GFL0090695</b>	GFL0087166	GFL0083754
Sample Date	Client Info		<b>28 Sep 2023</b>	10 Aug 2023	11 Jul 2023
Machine Age	hrs	Client Info	<b>5442</b>	5172	4993
Oil Age	hrs	Client Info	<b>1200</b>	0	0
Oil Changed	Client Info		<b>Changed</b>	Not Changd	Not Changd
Sample Status			<b>NORMAL</b>	NORMAL	MARGINAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>12</b>	18	29
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	2	2
Nickel	ppm	ASTM D5185m >2	<b>0</b>	<1	1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >9	<b>&lt;1</b>	2	3
Lead	ppm	ASTM D5185m >30	<b>&lt;1</b>	18	18
Copper	ppm	ASTM D5185m >35	<b>0</b>	2	2
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	1	1
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	<1	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	<b>6</b>	6	6
Barium	ppm	ASTM D5185m 5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 50	<b>58</b>	58	60
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	1	1
Magnesium	ppm	ASTM D5185m 560	<b>959</b>	624	562
Calcium	ppm	ASTM D5185m 1510	<b>1127</b>	1869	1639
Phosphorus	ppm	ASTM D5185m 780	<b>1020</b>	749	725
Zinc	ppm	ASTM D5185m 870	<b>1288</b>	1022	981
Sulfur	ppm	ASTM D5185m 2040	<b>3243</b>	2803	2567

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	<b>3</b>	5	7
Sodium	ppm	ASTM D5185m	<b>3</b>	10	8
Potassium	ppm	ASTM D5185m >20	<b>4</b>	4	2

## INFRA-RED

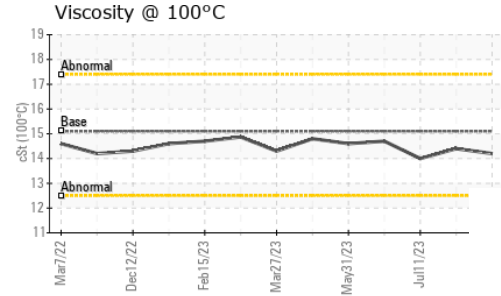
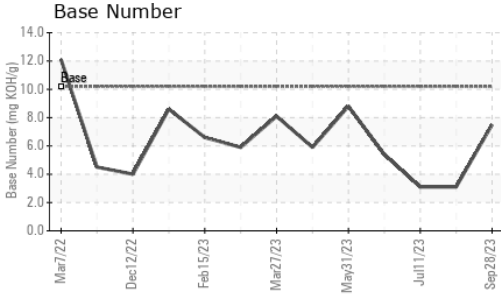
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0.6</b>	0	0
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.5</b>	11.6	11.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.8</b>	24.6	25.2

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.3</b>	20.7	20.5
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>7.5</b>	3.1	▲ 3.1



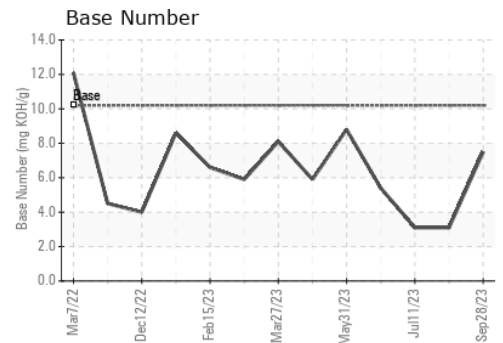
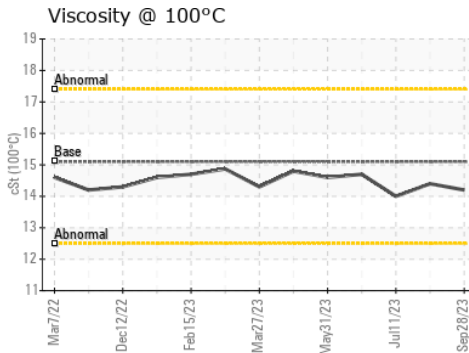
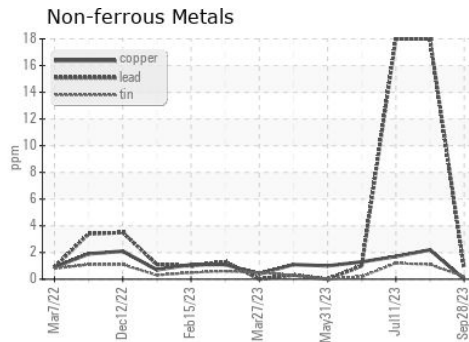
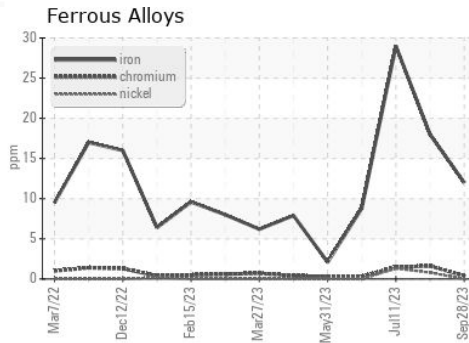
# OIL ANALYSIS REPORT



PARAMETER	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

PARAMETER	method	limit/base	current	history1	history2
FLUID PROPERTIES					
Visc @ 100°C	cSt	ASTM D445	15.1	14.2	14.4

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0090695  
 Lab Number : 05965969  
 Unique Number : 10672520  
 Test Package : FLEET

Received : 02 Oct 2023  
 Diagnosed : 03 Oct 2023  
 Diagnostician : Don Baldrige

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)