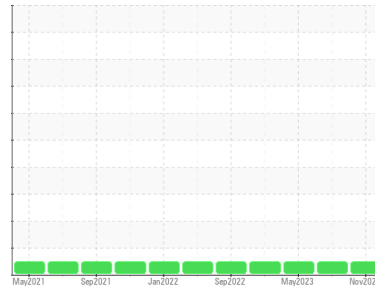




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**944018**

Component  
**Natural Gas Engine**

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

## 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>GFL0094247</b>	GFL0085403	GFL0077364
Sample Date	Client Info	<b>02 Nov 2023</b>	21 Jul 2023	19 May 2023
Machine Age	hrs	<b>259</b>	13995	13667
Oil Age	hrs	<b>0</b>	13995	1002
Oil Changed	Client Info	<b>N/A</b>	Changed	Changed
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	<b>9</b>	6	8
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	<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>2</b>	<1	0
Lead	ppm	ASTM D5185m >30	<b>&lt;1</b>	0	1
Copper	ppm	ASTM D5185m >35	<b>&lt;1</b>	<1	<1
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>&lt;1</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 50	<b>17</b>	23	11
Barium	ppm	ASTM D5185m 5	<b>5</b>	0	0
Molybdenum	ppm	ASTM D5185m 50	<b>52</b>	51	53
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 560	<b>552</b>	592	577
Calcium	ppm	ASTM D5185m 1510	<b>1477</b>	1600	1739
Phosphorus	ppm	ASTM D5185m 780	<b>757</b>	751	727
Zinc	ppm	ASTM D5185m 870	<b>912</b>	937	1018
Sulfur	ppm	ASTM D5185m 2040	<b>2270</b>	2770	2588

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >+100	<b>4</b>	3	4
Sodium	ppm	ASTM D5185m	<b>3</b>	6	9
Potassium	ppm	ASTM D5185m >20	<b>3</b>	<1	3

## INFRA-RED

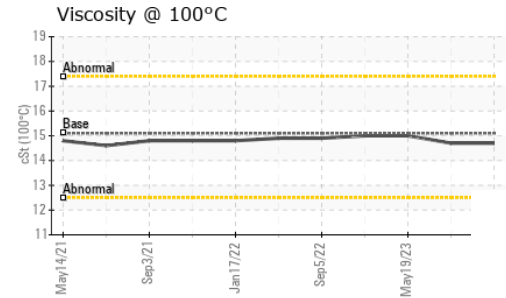
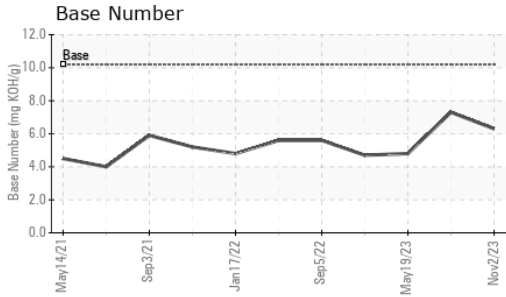
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	<b>0</b>	0.1	0
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.0</b>	8.3	10.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.3</b>	19.5	23.3

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>17.1</b>	16.3	19.7
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>6.3</b>	7.3	4.8



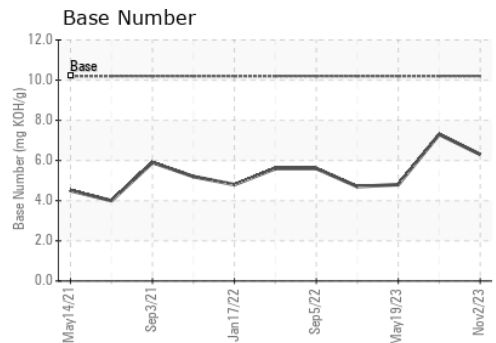
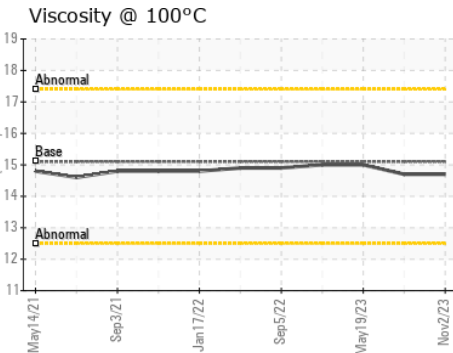
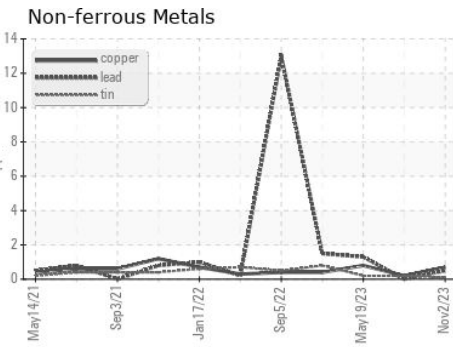
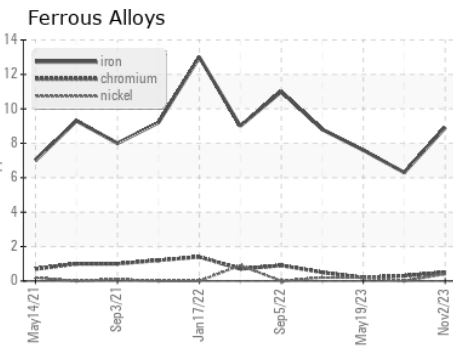
# OIL ANALYSIS REPORT



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	<b>14.7</b>	14.7	15.0

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0094247 **Received** : 07 Nov 2023  
**Lab Number** : **06000302** **Diagnosed** : 07 Nov 2023  
**Unique Number** : 10728662 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 882 - Gainesville**  
 5002 SW 41st Blvd  
 Gainesville, FL  
 US 32608  
 Contact: ROBERT CLARK  
 robert.clark@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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F: