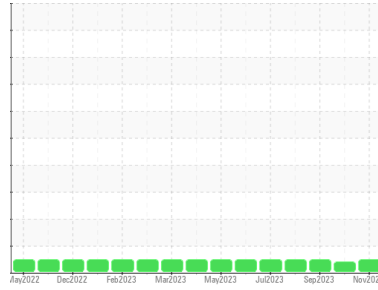




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**731118**

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>GFL0099953</b>	GFL0095101	GFL0090699	
Sample Date	Client Info	<b>15 Nov 2023</b>	26 Oct 2023	28 Sep 2023	
Machine Age	hrs	Client Info	<b>5826</b>	5714	5541
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info	<b>Not Changed</b>	Not Changed	Not Changed	
Sample Status		<b>NORMAL</b>	ATTENTION	NORMAL	

## CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.1	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	<b>12</b>	29	8
Chromium	ppm	ASTM D5185m >4	<b>1</b>	1	<1
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >9	<b>3</b>	6	<1
Lead	ppm	ASTM D5185m >30	<b>12</b>	11	2
Copper	ppm	ASTM D5185m >35	<b>&lt;1</b>	15	2
Tin	ppm	ASTM D5185m >4	<b>1</b>	2	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 50	<b>12</b>	7	11
Barium	ppm	ASTM D5185m 5	<b>0</b>	4	0
Molybdenum	ppm	ASTM D5185m 50	<b>57</b>	51	52
Manganese	ppm	ASTM D5185m 0	<b>1</b>	4	<1
Magnesium	ppm	ASTM D5185m 560	<b>624</b>	780	553
Calcium	ppm	ASTM D5185m 1510	<b>1698</b>	1147	1633
Phosphorus	ppm	ASTM D5185m 780	<b>762</b>	722	685
Zinc	ppm	ASTM D5185m 870	<b>1038</b>	865	937
Sulfur	ppm	ASTM D5185m 2040	<b>2453</b>	2021	2377

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >+100	<b>5</b>	79	4
Sodium	ppm	ASTM D5185m	<b>8</b>	8	8
Potassium	ppm	ASTM D5185m >20	<b>0</b>	8	1

## INFRA-RED

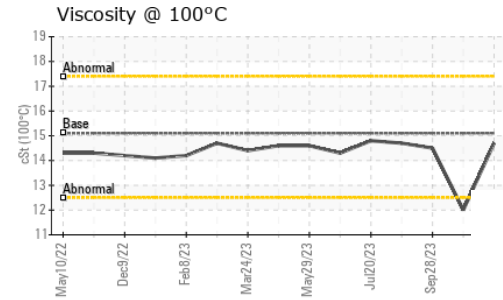
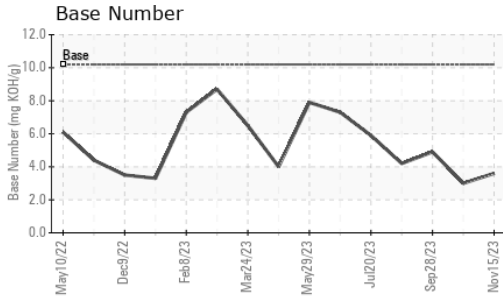
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	<b>0</b>	0	0
Nitration	Abs/cm	*ASTM D7624 >20	<b>11.8</b>	13.0	10.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>24.9</b>	26.9	21.0

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>20.2</b>	25.3	18.1
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>3.6</b>	3.0	4.9



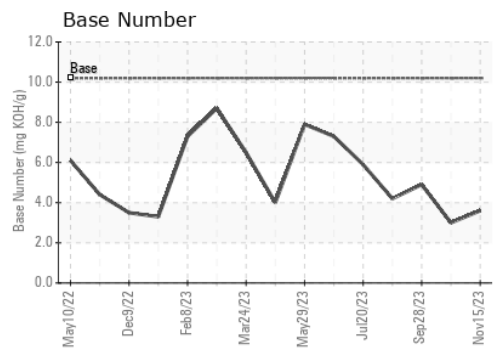
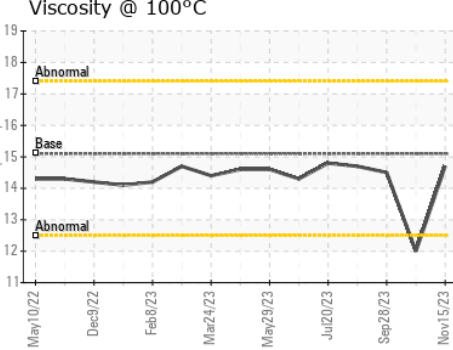
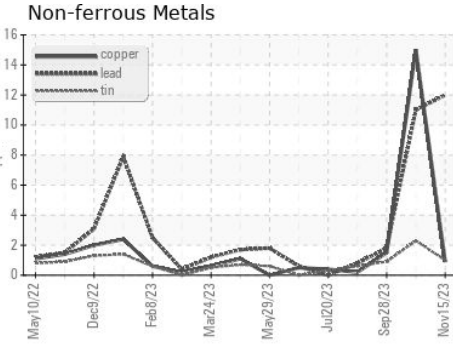
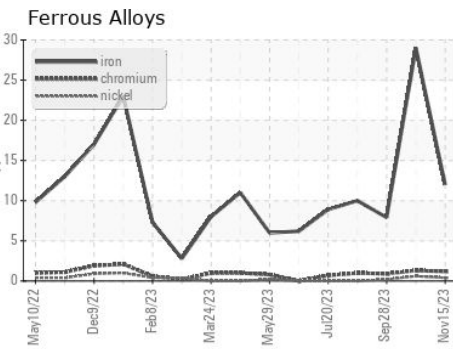
# OIL ANALYSIS REPORT



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	14.7 ▲	12.0	14.5

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0099953 **Received** : 22 Nov 2023  
**Lab Number** : 06015625 **Diagnosed** : 26 Nov 2023  
**Unique Number** : 10754769 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**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)