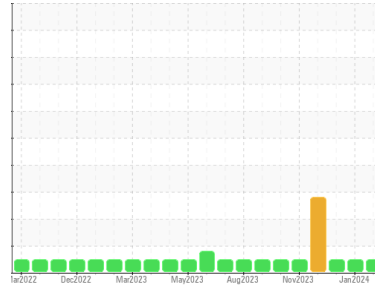




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**731114**

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>GFL0114095</b>	GFL0103283	GFL0099983
Sample Date	Client Info	<b>06 Mar 2024</b>	04 Jan 2024	13 Dec 2023
Machine Age	hrs	<b>7059</b>	6750	6612
Oil Age	hrs	<b>0</b>	0	1200
Oil Changed	Client Info	<b>Not Chngd</b>	Not Chngd	Changed
Sample Status		<b>NORMAL</b>	NORMAL	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>13</b>	11	44
Chromium	ppm	ASTM D5185m >4	<b>0</b>	1	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	<1	<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>1</b>	2	5
Lead	ppm	ASTM D5185m >30	<b>2</b>	3	0
Copper	ppm	ASTM D5185m >35	<b>&lt;1</b>	<1	13
Tin	ppm	ASTM D5185m >4	<b>0</b>	1	2
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>6</b>	12	10
Barium	ppm	ASTM D5185m 5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 50	<b>57</b>	54	51
Manganese	ppm	ASTM D5185m 0	<b>0</b>	<1	12
Magnesium	ppm	ASTM D5185m 560	<b>534</b>	581	736
Calcium	ppm	ASTM D5185m 1510	<b>1561</b>	1614	1304
Phosphorus	ppm	ASTM D5185m 780	<b>632</b>	809	662
Zinc	ppm	ASTM D5185m 870	<b>903</b>	986	946
Sulfur	ppm	ASTM D5185m 2040	<b>2245</b>	2503	2276

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >+100	<b>4</b>	5	26
Sodium	ppm	ASTM D5185m	<b>3</b>	7	4
Potassium	ppm	ASTM D5185m >20	<b>0</b>	0	7

## INFRA-RED

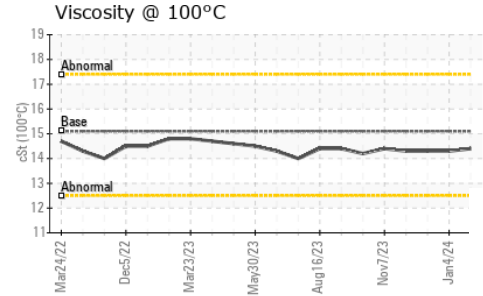
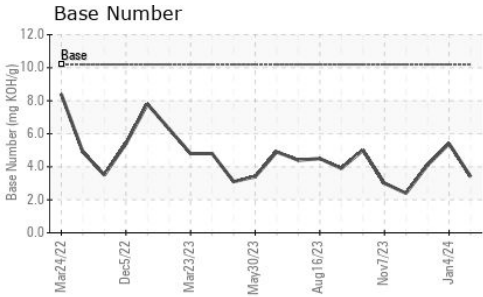
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	<b>0</b>	0.2	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>11.6</b>	9.8	12.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>24.4</b>	20.0	23.1

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>20.1</b>	16.6	20.4
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>3.4</b>	5.4	4.1



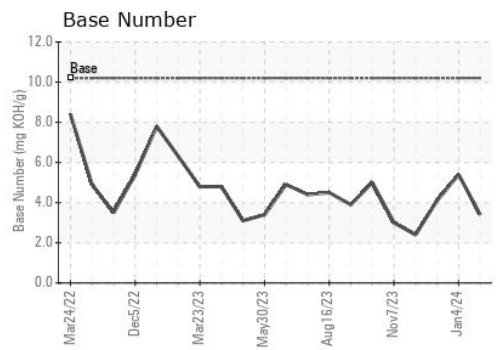
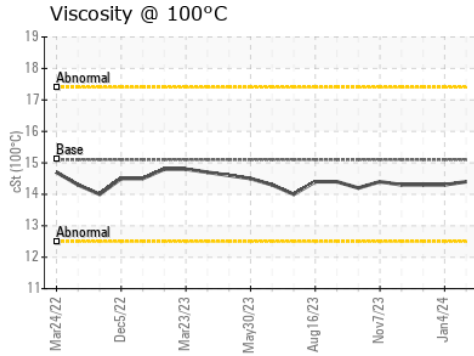
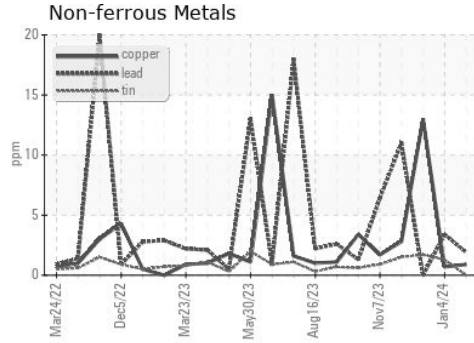
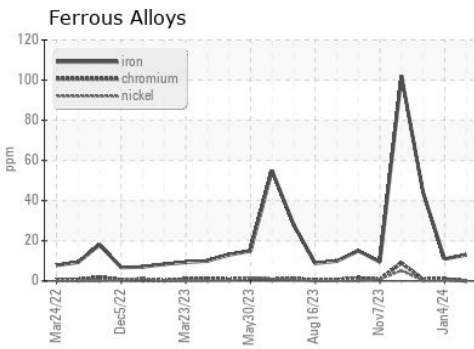
# OIL ANALYSIS REPORT



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>14.4</b>	14.3	14.3

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0114095 **Received** : 11 Mar 2024  
**Lab Number** : **06113847** **Tested** : 11 Mar 2024  
**Unique Number** : 10922680 **Diagnosed** : 11 Mar 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 836 - Kansas City Hauling**  
 7801 East Truman Road  
 Kansas City, MO  
 US 64126  
 Contact: Loyce Stewart  
 loyce.stewart@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)