



# OIL ANALYSIS REPORT

Sample Rating Trend

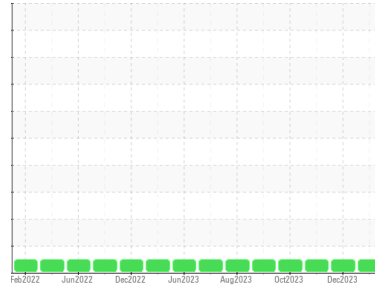
**NORMAL**



Machine Id  
**731117**

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>GFL0103304</b>	GFL0103362	GFL0095180
Sample Date	Client Info		<b>16 Jan 2024</b>	20 Dec 2023	07 Nov 2023
Machine Age	hrs	Client Info	<b>5943</b>	5770	5494
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
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>18</b>	8	12
Chromium	ppm	ASTM D5185m >4	<b>1</b>	<1	1
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</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>	2	2
Lead	ppm	ASTM D5185m >30	<b>8</b>	4	6
Copper	ppm	ASTM D5185m >35	<b>&lt;1</b>	1	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>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	<b>6</b>	16	15
Barium	ppm	ASTM D5185m 5	<b>3</b>	0	0
Molybdenum	ppm	ASTM D5185m 50	<b>59</b>	52	57
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 560	<b>651</b>	542	608
Calcium	ppm	ASTM D5185m 1510	<b>1691</b>	1505	1654
Phosphorus	ppm	ASTM D5185m 780	<b>798</b>	752	804
Zinc	ppm	ASTM D5185m 870	<b>1068</b>	986	1074
Sulfur	ppm	ASTM D5185m 2040	<b>2872</b>	2443	2528

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	<b>6</b>	4	4
Sodium	ppm	ASTM D5185m	<b>7</b>	1	7
Potassium	ppm	ASTM D5185m >20	<b>2</b>	0	2

## INFRA-RED

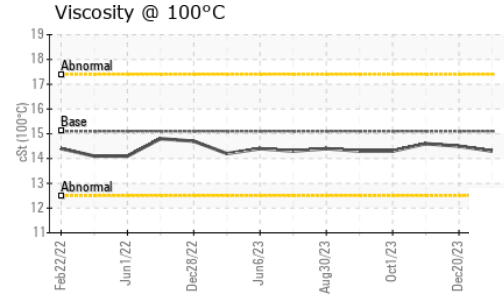
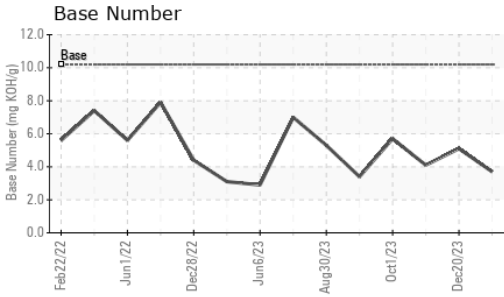
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0</b>	0	0
Nitration	Abs/cm	*ASTM D7624 >20	<b>12.0</b>	10.7	11.7
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>25.5</b>	21.2	24.4

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>20.0</b>	17.9	20.2
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>3.7</b>	5.1	4.1



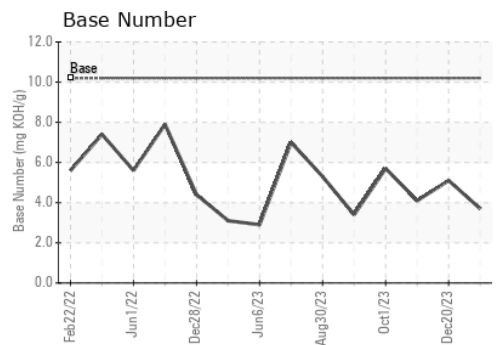
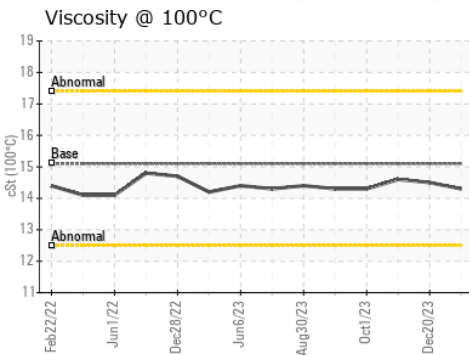
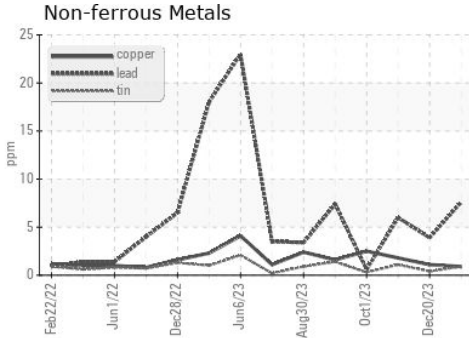
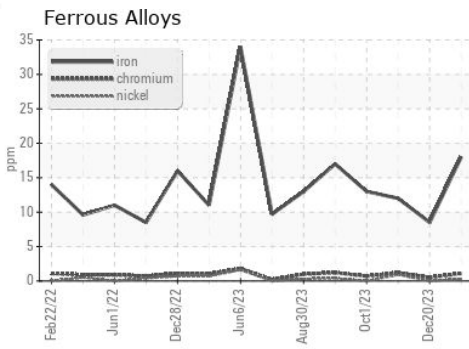
# OIL ANALYSIS REPORT



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>14.3</b>	14.5	14.6

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0103304 **Received** : 18 Jan 2024  
**Lab Number** : **06064140** **Diagnosed** : 19 Jan 2024  
**Unique Number** : 10835522 **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  
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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)