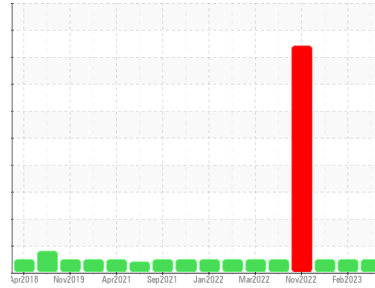




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**3780C**

Component  
**Natural Gas Engine**

Fluid  
**PETRO CANADA DURON GEO LD 15W40 (46 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>GFL0080598</b>	GFL0066882	GFL0066813
Sample Date	Client Info	<b>20 Jul 2023</b>	24 Feb 2023	02 Feb 2023
Machine Age	hrs	<b>94759</b>	94759	94759
Oil Age	hrs	<b>94759</b>	94759	94759
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Glycol	WC Method	---	---	---

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	<b>4</b>	13	28
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	1	3
Nickel	ppm	ASTM D5185m >2	<b>0</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>&lt;1</b>	1	3
Lead	ppm	ASTM D5185m >30	<b>0</b>	0	1
Copper	ppm	ASTM D5185m >35	<b>0</b>	0	<1
Tin	ppm	ASTM D5185m >4	<b>0</b>	<1	<1
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>46</b>	23	22
Barium	ppm	ASTM D5185m 5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 50	<b>48</b>	55	60
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m 560	<b>582</b>	567	585
Calcium	ppm	ASTM D5185m 1510	<b>1648</b>	1735	1670
Phosphorus	ppm	ASTM D5185m 780	<b>791</b>	781	822
Zinc	ppm	ASTM D5185m 870	<b>958</b>	984	1073
Sulfur	ppm	ASTM D5185m 2040	<b>2977</b>	2768	3173

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >+100	<b>11</b>	6	8
Sodium	ppm	ASTM D5185m	<b>4</b>	17	21
Potassium	ppm	ASTM D5185m >20	<b>6</b>	9	9

## INFRA-RED

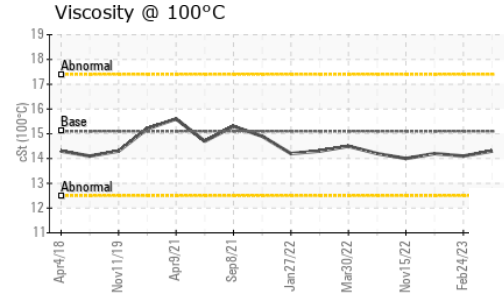
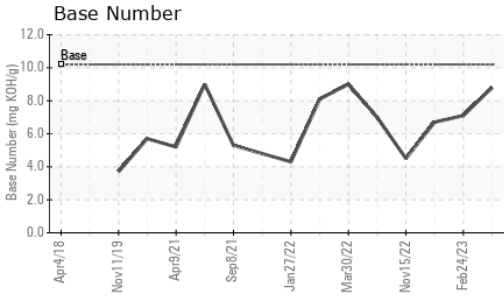
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	<b>0</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.7</b>	9.3	10.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.8</b>	19.2	19.9

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.0</b>	15.6	15.5
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>8.8</b>	7.1	6.7



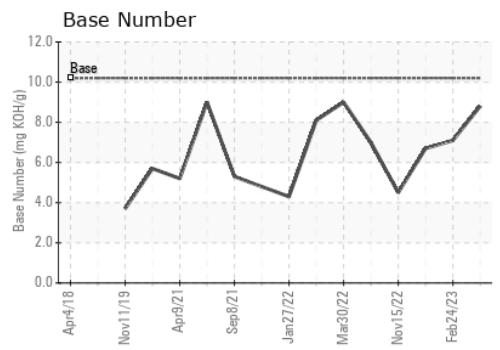
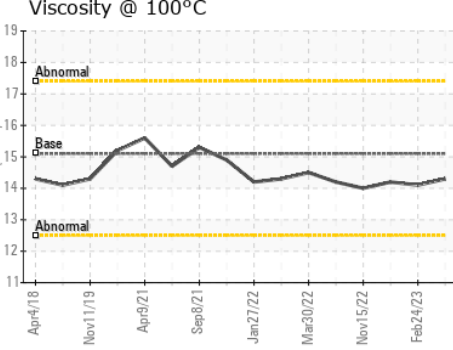
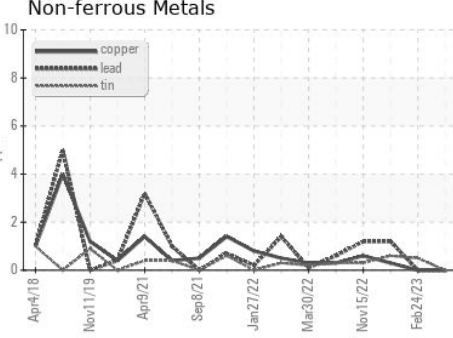
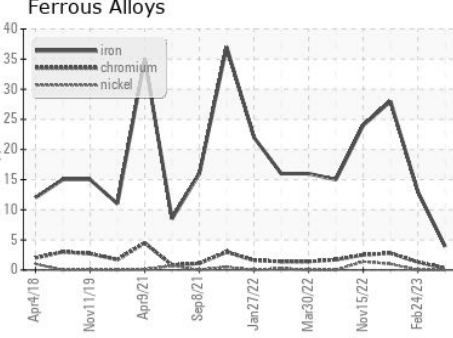
# OIL ANALYSIS REPORT



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>	14.1	14.2

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0080598 **Received** : 21 Jul 2023  
**Lab Number** : **05904151** **Diagnosed** : 01 Aug 2023  
**Unique Number** : 10565507 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 018 - Fayetteville**  
 4621 Marracco Drive  
 Hope Mills, NC  
 US 28348  
 Contact: Robert Carter  
 robert.carter@gflenv.com  
 T: (910)596-1170  
 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)