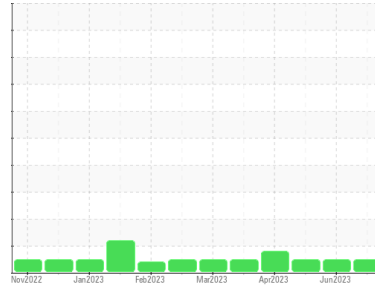




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**ALEXANDER CITY**  
 Machine Id  
**711006**

Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 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	history 1	history 2	
Sample Number	Client Info	<b>GFL0086063</b>	GFL0086006	GFL0081906	
Sample Date	Client Info	<b>29 Jun 2023</b>	20 Jun 2023	02 Jun 2023	
Machine Age	hrs	Client Info	<b>5286</b>	5069	80347
Oil Age	hrs	Client Info	<b>844</b>	5069	5217
Oil Changed	Client Info	<b>Not Changed</b>	N/A	Not Changed	
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL	

## CONTAMINATION

method	limit/base	current	history 1	history 2
Fuel	WC Method >5	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history 1	history 2	
Iron	ppm	ASTM D5185m >100	<b>23</b>	19	17
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>5</b>	3	5
Lead	ppm	ASTM D5185m >40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >330	<b>3</b>	1	1
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history 1	history 2	
Boron	ppm	ASTM D5185m 0	<b>23</b>	22	23
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>70</b>	67	64
Manganese	ppm	ASTM D5185m 0	<b>1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>907</b>	880	880
Calcium	ppm	ASTM D5185m 1070	<b>1196</b>	1180	1147
Phosphorus	ppm	ASTM D5185m 1150	<b>1005</b>	964	978
Zinc	ppm	ASTM D5185m 1270	<b>1234</b>	1170	1214
Sulfur	ppm	ASTM D5185m 2060	<b>3672</b>	3509	3656

## CONTAMINANTS

method	limit/base	current	history 1	history 2	
Silicon	ppm	ASTM D5185m >25	<b>8</b>	6	6
Sodium	ppm	ASTM D5185m	<b>2</b>	2	2
Potassium	ppm	ASTM D5185m >20	<b>8</b>	5	5

## INFRA-RED

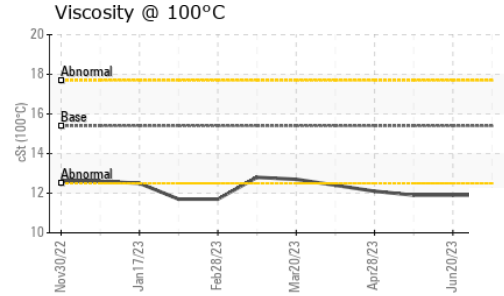
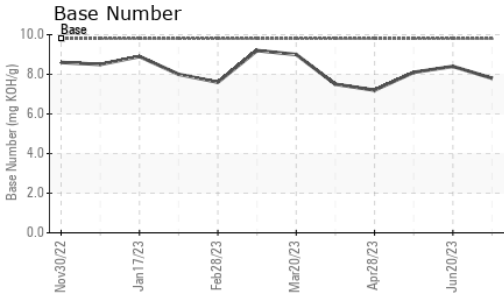
method	limit/base	current	history 1	history 2	
Soot %	%	*ASTM D7844 >3	<b>0.6</b>	0.5	0.5
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.3</b>	9.1	8.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.4</b>	19.0	19.0

## FLUID DEGRADATION

method	limit/base	current	history 1	history 2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.5</b>	14.3	14.1
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.8</b>	8.4	8.1



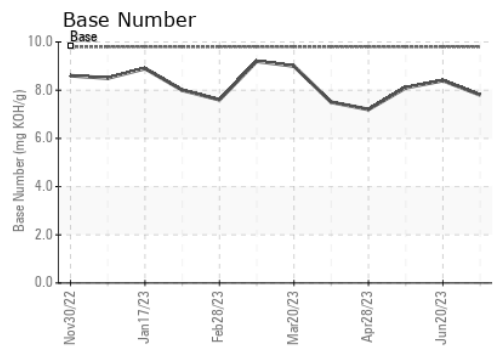
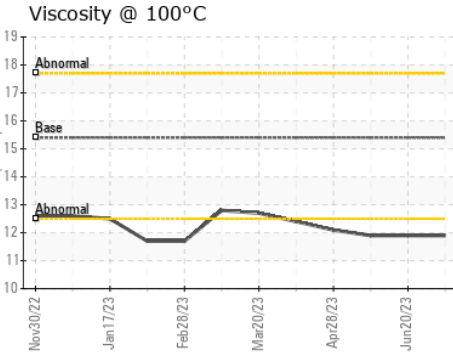
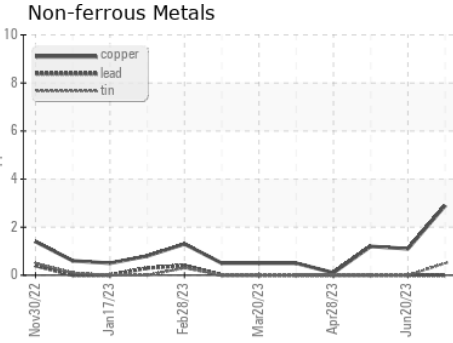
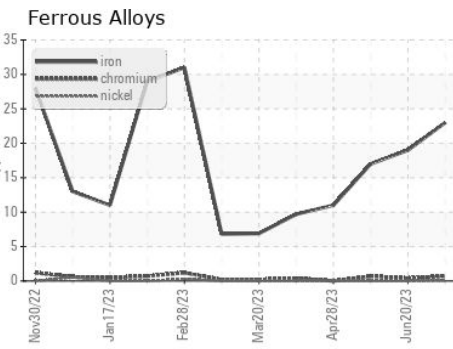
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2
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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	15.4	11.9	11.9

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0086063 **Received** : 06 Jul 2023  
**Lab Number** : 05891191 **Diagnosed** : 06 Jul 2023  
**Unique Number** : 10547001 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

GFL Environmental - 172 - Montgomery-Alexander City-Tallahassee  
 Multiple Sites  
 Montgomery, AL  
 US 36108  
 Contact: Lisa Reeves  
 lisa.reeves@gflenv.com  
 T: (334)946-9566  
 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)