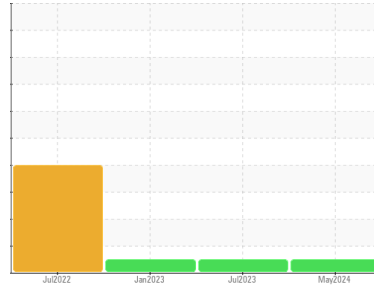




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id

**728012**

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	history1	history2	
Sample Number	Client Info	<b>GFL0110205</b>	GFL0060486	GFL0060421	
Sample Date	Client Info	<b>24 May 2024</b>	27 Jul 2023	07 Jan 2023	
Machine Age	hrs	Client Info	<b>6670</b>	4494	4174
Oil Age	hrs	Client Info	<b>600</b>	600	600
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed	
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL	

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method >0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	<b>12</b>	14	45
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185m >4	<b>0</b>	<1	0
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	3	17
Silver	ppm ASTM D5185m >3	<b>&lt;1</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>4</b>	4	8
Lead	ppm ASTM D5185m >40	<b>&lt;1</b>	<1	2
Copper	ppm ASTM D5185m >330	<b>2</b>	3	11
Tin	ppm ASTM D5185m >15	<b>0</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 0	<b>1</b>	5	2
Barium	ppm ASTM D5185m 0	<b>0</b>	0	2
Molybdenum	ppm ASTM D5185m 60	<b>62</b>	55	49
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	1
Magnesium	ppm ASTM D5185m 1010	<b>1058</b>	882	791
Calcium	ppm ASTM D5185m 1070	<b>1248</b>	1078	1283
Phosphorus	ppm ASTM D5185m 1150	<b>1229</b>	976	1022
Zinc	ppm ASTM D5185m 1270	<b>1506</b>	1202	1260
Sulfur	ppm ASTM D5185m 2060	<b>4012</b>	3381	2953

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>5</b>	7	10
Sodium	ppm ASTM D5185m	<b>0</b>	2	0
Potassium	ppm ASTM D5185m >20	<b>2</b>	4	12

## INFRA-RED

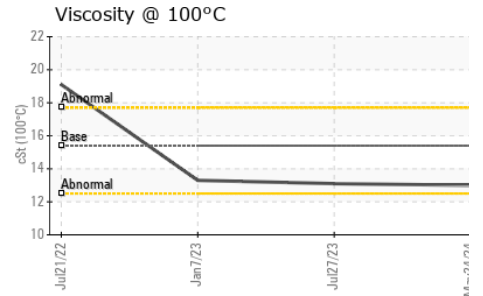
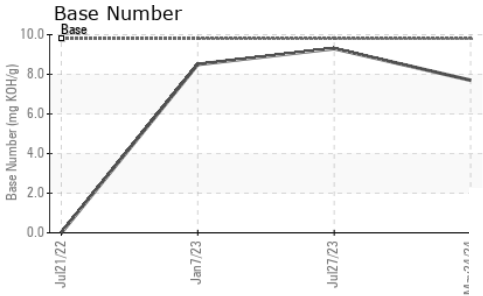
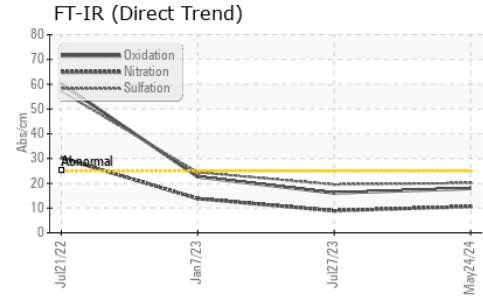
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.8</b>	0.7	1.5
Nitration	Abs/cm *ASTM D7624 >20	<b>10.6</b>	8.9	13.8
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>20.1</b>	19.5	24.4

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>17.9</b>	16.1	22.6
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.7</b>	9.3	8.5



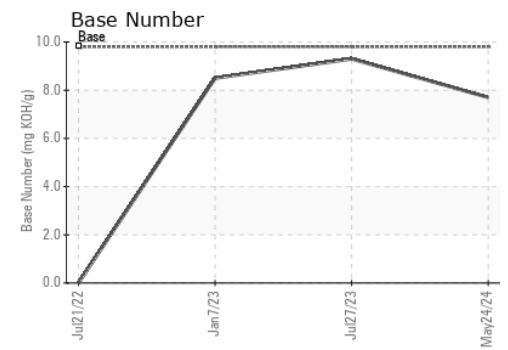
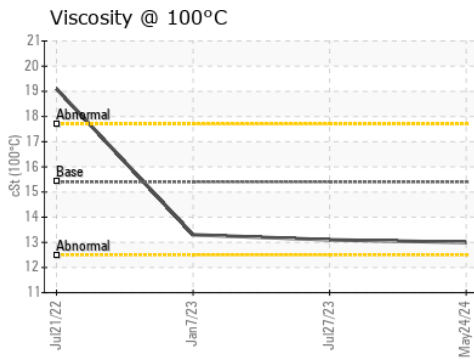
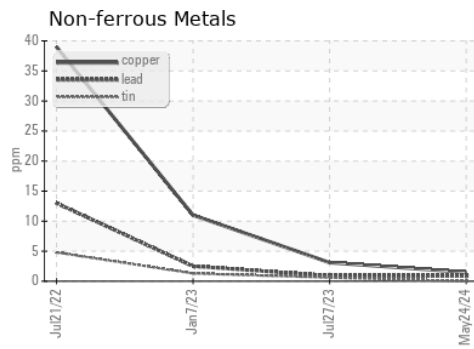
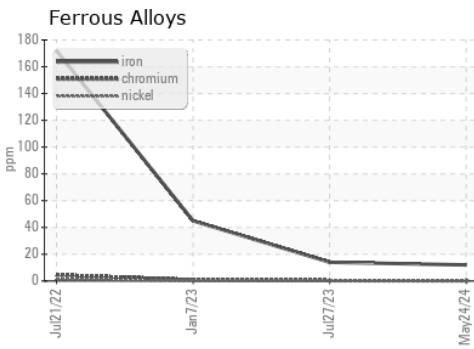
# OIL ANALYSIS REPORT



PARAMETER	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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.0	13.1

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0110205      **Received** : 28 May 2024  
**Lab Number** : 06193333      **Tested** : 30 May 2024  
**Unique Number** : 11050085      **Diagnosed** : 30 May 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 660 - Lynchburg Hauling**  
 2410 Mayflower Drive  
 Lynchburg, VA  
 US 24501  
 Contact: Delbert Beasley  
 dbeasley@countyrecycling.net  
 T: (434)665-5998  
 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)