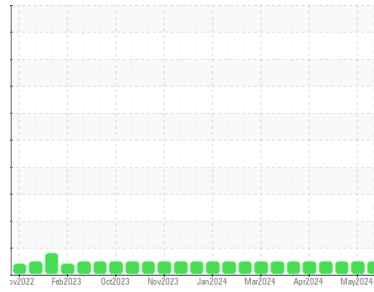




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id

**413007**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON SHP 15W40 (8 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>GFL0112236</b>	GFL0112258	GFL0112201
Sample Date	Client Info		<b>21 Jun 2024</b>	31 May 2024	10 May 2024
Machine Age	hrs	Client Info	<b>4929</b>	4753	4630
Oil Age	hrs	Client Info	<b>150</b>	150	600
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
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>5</b>	4	7
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m >4	<b>1</b>	<1	2
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>3</b>	1	3
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m >330	<b>1</b>	<1	2
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>1</b>	0	<1
Barium	ppm	ASTM D5185m 0	<b>1</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>59</b>	55	56
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m 1010	<b>891</b>	907	889
Calcium	ppm	ASTM D5185m 1070	<b>1050</b>	1047	1034
Phosphorus	ppm	ASTM D5185m 1150	<b>1052</b>	1024	1047
Zinc	ppm	ASTM D5185m 1270	<b>1209</b>	1197	1227
Sulfur	ppm	ASTM D5185m 2060	<b>3005</b>	3374	3102

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>6</b>	0	5
Sodium	ppm	ASTM D5185m	<b>14</b>	3	3
Potassium	ppm	ASTM D5185m >20	<b>23</b>	<1	4

## INFRA-RED

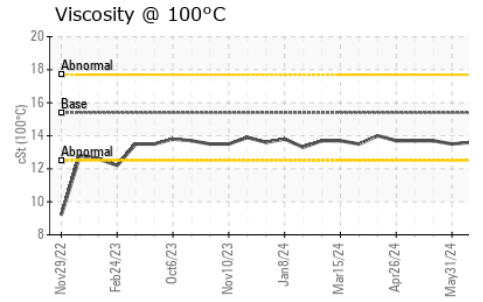
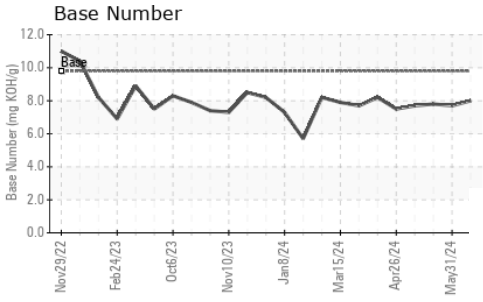
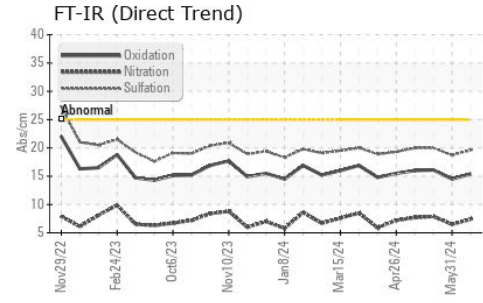
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.2</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.4</b>	6.5	7.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.6</b>	18.7	20.0

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.4</b>	14.5	16.1
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.0</b>	7.7	7.8



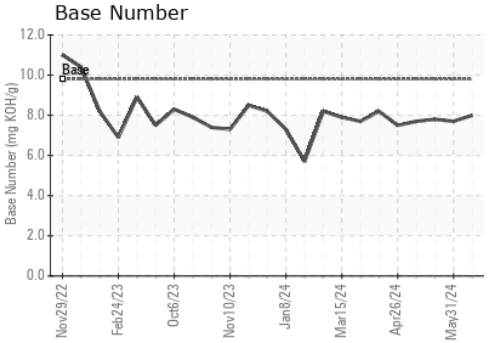
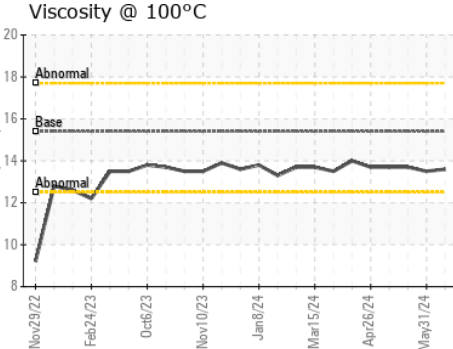
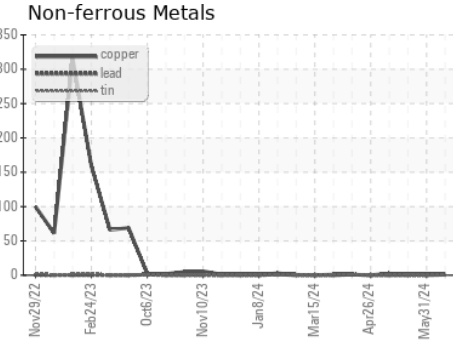
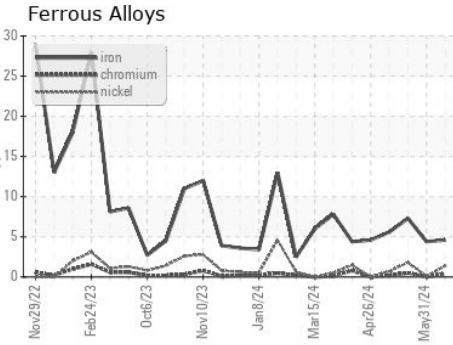
# OIL ANALYSIS REPORT



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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.6	13.5

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0112236  
**Lab Number** : 06219265  
**Unique Number** : 11097462  
**Test Package** : FLEET

**GFL Environmental - 829 - Wilco Hauling**  
 5054 Highway HH  
 Hartville, MO  
 US 65667

Received : 25 Jun 2024  
 Tested : 25 Jun 2024  
 Diagnosed : 25 Jun 2024 - Wes Davis  
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