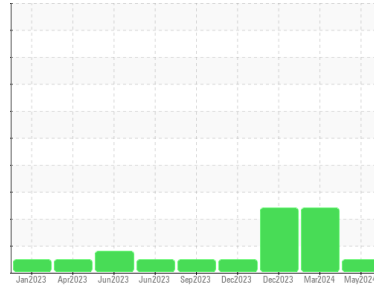




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id

**729105**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

Fuel content negligible. 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>GFL0086968</b>	GFL0086977	GFL0086927
Sample Date	Client Info		<b>31 May 2024</b>	08 Mar 2024	18 Dec 2023
Machine Age	hrs	Client Info	<b>23500</b>	23000	22822
Oil Age	hrs	Client Info	<b>500</b>	600	600
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	Changed
Sample Status			<b>NORMAL</b>	SEVERE	SEVERE

## CONTAMINATION

	method	limit/base	current	history1	history2
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 >110	<b>3</b>	13	11
Chromium	ppm	ASTM D5185m >4	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185m >45	<b>0</b>	4	2
Copper	ppm	ASTM D5185m >85	<b>&lt;1</b>	1	2
Tin	ppm	ASTM D5185m >4	<b>0</b>	0	<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 0	<b>5</b>	3	5
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m 60	<b>58</b>	55	53
Manganese	ppm	ASTM D5185m 0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m 1010	<b>900</b>	901	843
Calcium	ppm	ASTM D5185m 1070	<b>1077</b>	1013	929
Phosphorus	ppm	ASTM D5185m 1150	<b>1023</b>	938	978
Zinc	ppm	ASTM D5185m 1270	<b>1186</b>	1153	1126
Sulfur	ppm	ASTM D5185m 2060	<b>3499</b>	3194	2645

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	<b>0</b>	2	3
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	3	5
Potassium	ppm	ASTM D5185m >20	<b>0</b>	0	0
Fuel	%	ASTM D3524 >5	<b>0.6</b>	▲ 8.0	▲ 9.2

## INFRA-RED

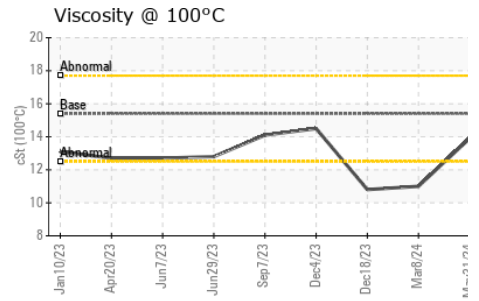
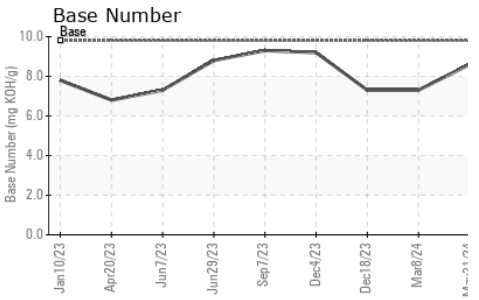
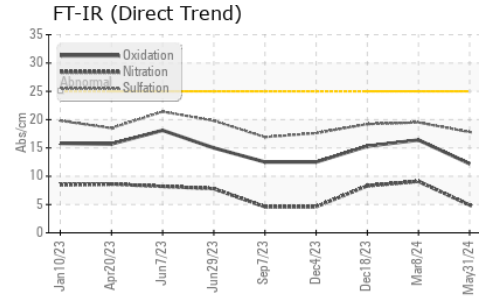
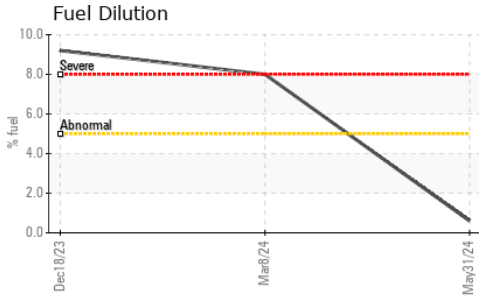
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.7</b>	0.5	0.5
Nitration	Abs/cm	*ASTM D7624 >20	<b>4.9</b>	9.1	8.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>17.8</b>	19.5	19.2

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>12.2</b>	16.4	15.3
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.6</b>	7.3	7.3



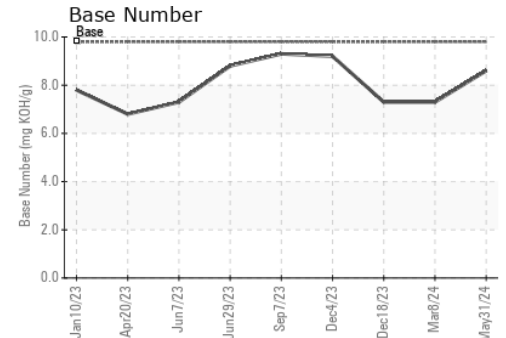
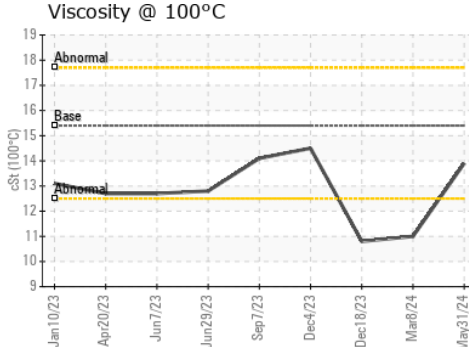
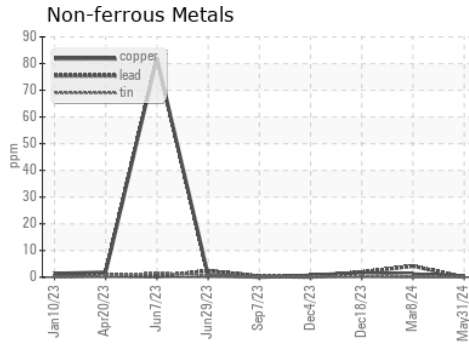
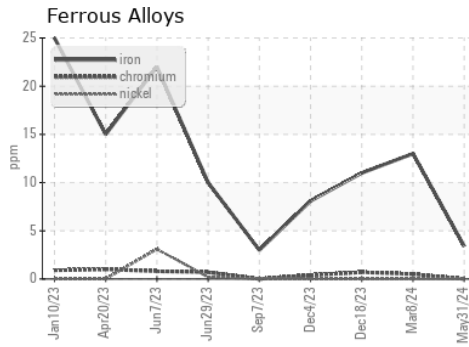
# OIL ANALYSIS REPORT



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	13.9	▲ 11.0

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0086968  
**Lab Number** : 06198815  
**Unique Number** : 11060938  
**Test Package** : FLEET ( Additional Tests: PercentFuel )

**GFL Environmental - 408 - Brown City**  
 4235 M-53  
 BROWN CITY, MI  
 US 48416

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)

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