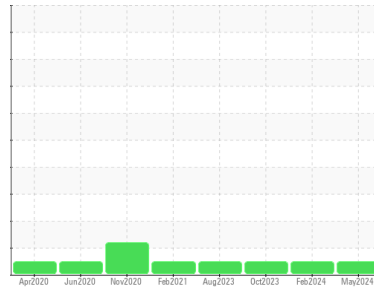




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id

**7008A**

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>GFL0101007</b>	GFL0092827	GFL0092753
Sample Date	Client Info		<b>28 May 2024</b>	21 Feb 2024	31 Oct 2023
Machine Age	hrs	Client Info	<b>7428</b>	7428	0
Oil Age	hrs	Client Info	<b>0</b>	7428	0
Oil Changed	Client Info		<b>Not Chngd</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## 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 >90	<b>18</b>	31	17
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m >2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	4	3
Lead	ppm	ASTM D5185m >40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >330	<b>1</b>	2	<1
Tin	ppm	ASTM D5185m >15	<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 0	<b>0</b>	6	3
Barium	ppm	ASTM D5185m 0	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185m 60	<b>62</b>	65	64
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>931</b>	884	1024
Calcium	ppm	ASTM D5185m 1070	<b>1109</b>	1048	1161
Phosphorus	ppm	ASTM D5185m 1150	<b>1044</b>	944	1164
Zinc	ppm	ASTM D5185m 1270	<b>1190</b>	1117	1425
Sulfur	ppm	ASTM D5185m 2060	<b>3424</b>	2650	3157

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>&lt;1</b>	5	3
Sodium	ppm	ASTM D5185m	<b>2</b>	6	1
Potassium	ppm	ASTM D5185m >20	<b>0</b>	4	3
Fuel	%	ASTM D3524 >3.0	<b>0.3</b>	<1.0	<1.0

## INFRA-RED

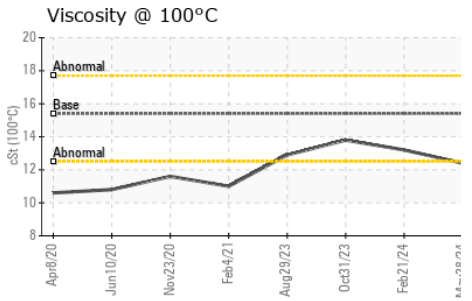
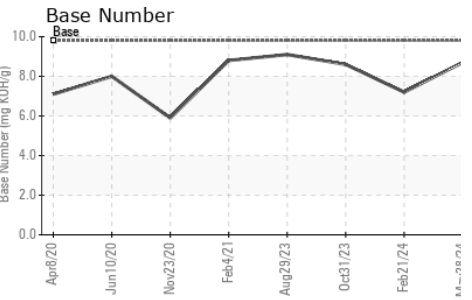
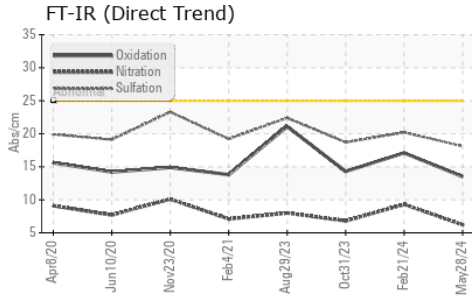
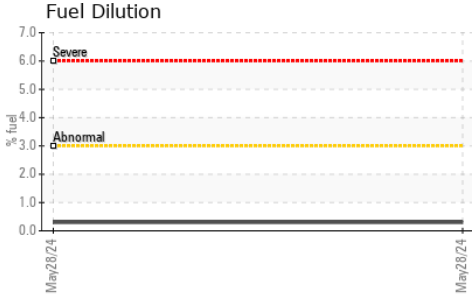
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >6	<b>0.3</b>	0.5	0.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.2</b>	9.3	6.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.1</b>	20.2	18.7

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>13.5</b>	17.1	14.3
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.7</b>	7.2	8.6



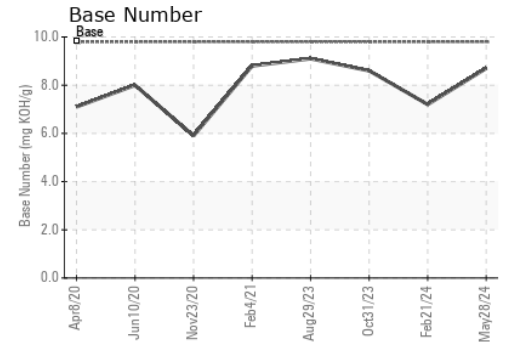
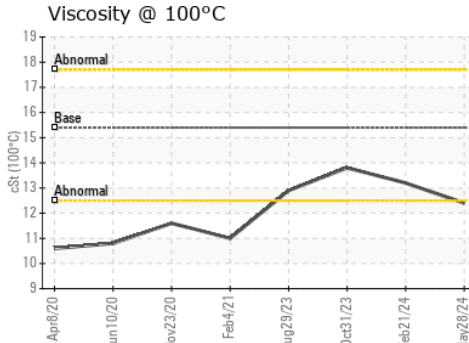
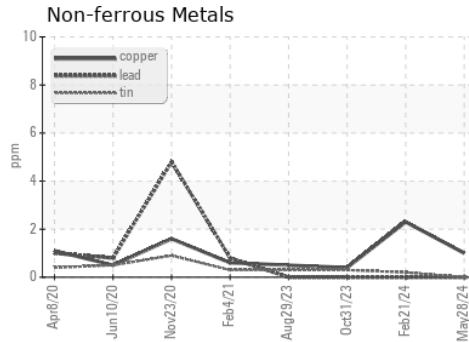
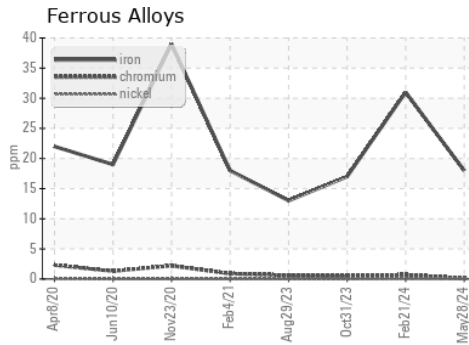
# OIL ANALYSIS REPORT



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	12.4	13.2

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : GFL0101007

Lab Number : 06197244

Unique Number : 11059367

Test Package : FLEET ( Additional Tests: FuelDilution, PercentFuel )

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)

Received : 03 Jun 2024

Tested : 05 Jun 2024

Diagnosed : 05 Jun 2024 - Wes Davis

GFL Environmental - 455 - Flint

2051 W. Bristol Rd

Flint Township, MI

US 48507

Contact: MARK WOMBLE

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F: