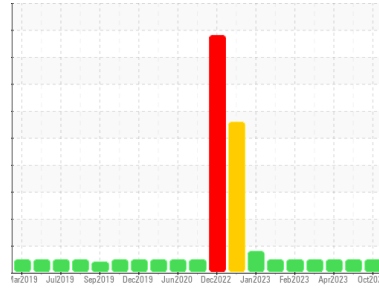




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**426077-402305**

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>GFL0084606</b>	GFL0078136	GFL0078171
Sample Date	Client Info		<b>09 Oct 2023</b>	08 May 2023	26 Apr 2023
Machine Age	mls	Client Info	<b>0</b>	323858	322513
Oil Age	mls	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	Not Changd	Not Changd
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
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >110	<b>7</b>	29	23
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m >2	<b>1</b>	<1	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>4</b>	6	5
Lead	ppm	ASTM D5185m >45	<b>4</b>	3	0
Copper	ppm	ASTM D5185m >85	<b>&lt;1</b>	12	11
Tin	ppm	ASTM D5185m >4	<b>1</b>	<1	0
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>8</b>	<1	0
Barium	ppm	ASTM D5185m 0	<b>0</b>	2	0
Molybdenum	ppm	ASTM D5185m 60	<b>56</b>	65	63
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>627</b>	979	1019
Calcium	ppm	ASTM D5185m 1070	<b>1718</b>	1217	1232
Phosphorus	ppm	ASTM D5185m 1150	<b>750</b>	1087	1106
Zinc	ppm	ASTM D5185m 1270	<b>1031</b>	1304	1331
Sulfur	ppm	ASTM D5185m 2060	<b>2541</b>	3300	3531

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	<b>5</b>	11	9
Sodium	ppm	ASTM D5185m	<b>9</b>	4	4
Potassium	ppm	ASTM D5185m >20	<b>2</b>	13	8

## INFRA-RED

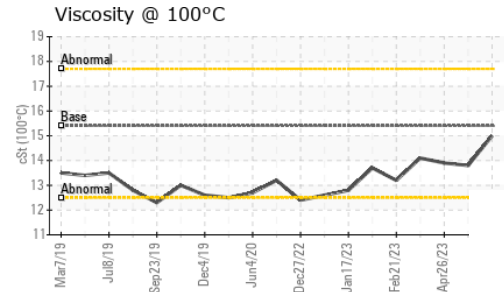
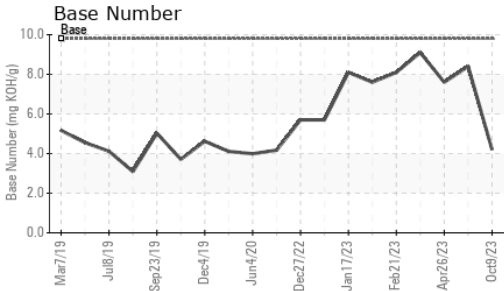
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0</b>	0.7	0.6
Nitration	Abs/cm	*ASTM D7624 >20	<b>11.7</b>	8.3	7.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>23.7</b>	20.7	18.1

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>20.5</b>	15.5	14.3
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>4.2</b>	8.4	7.6



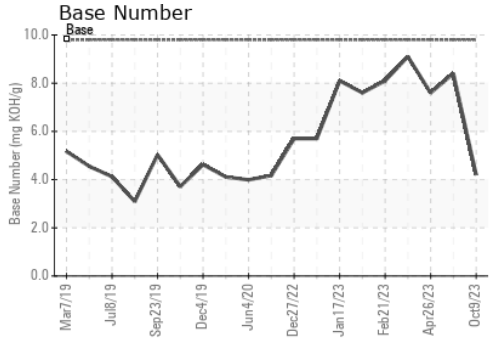
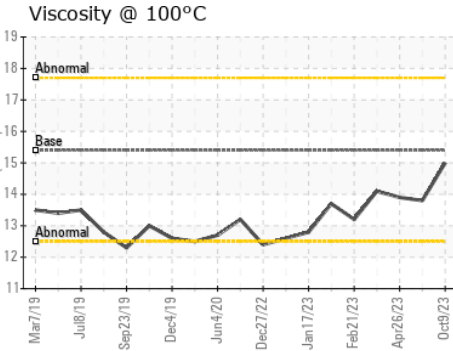
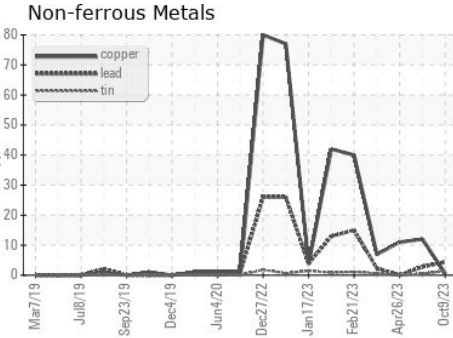
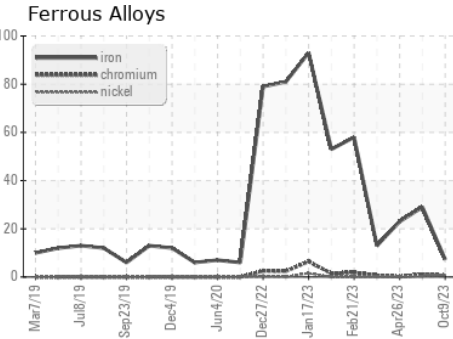
# OIL ANALYSIS REPORT



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	<b>15.0</b>	13.8	13.9

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0084606 **Received** : 10 Oct 2023  
**Lab Number** : **05974685** **Diagnosed** : 12 Oct 2023  
**Unique Number** : 10686635 **Diagnostician** : Don Baldrige  
**Test Package** : FLEET

**GFL Environmental - 856 - Houston South**  
 8515 Highway 6 South  
 Houston, TX  
 US 77083  
 Contact: Gino Griego

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)

T:  
F: