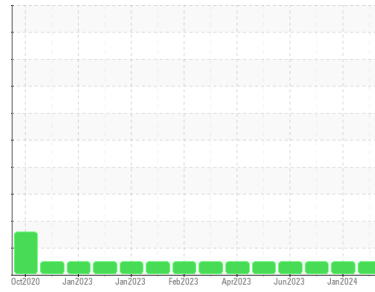




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**741001-310090**

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>GFL0106751</b>	GFL0092126	GFL0084639
Sample Date	Client Info		<b>09 Apr 2024</b>	24 Jan 2024	02 Nov 2023
Machine Age	hrs	Client Info	<b>9995</b>	9409	103771
Oil Age	hrs	Client Info	<b>600</b>	600	0
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 >110	<b>10</b>	12	23
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	2
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	1	<1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>2</b>	3	3
Lead	ppm	ASTM D5185m >45	<b>2</b>	2	8
Copper	ppm	ASTM D5185m >85	<b>&lt;1</b>	0	<1
Tin	ppm	ASTM D5185m >4	<b>1</b>	<1	1
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>8</b>	11	10
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>58</b>	55	63
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>556</b>	566	754
Calcium	ppm	ASTM D5185m 1070	<b>1730</b>	1592	1911
Phosphorus	ppm	ASTM D5185m 1150	<b>753</b>	680	879
Zinc	ppm	ASTM D5185m 1270	<b>981</b>	986	1215
Sulfur	ppm	ASTM D5185m 2060	<b>2645</b>	2356	2783

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	<b>5</b>	4	6
Sodium	ppm	ASTM D5185m	<b>6</b>	13	9
Potassium	ppm	ASTM D5185m >20	<b>2</b>	5	<1

## INFRA-RED

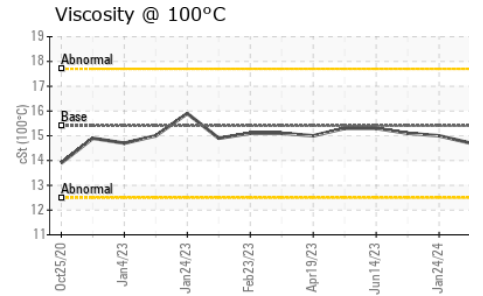
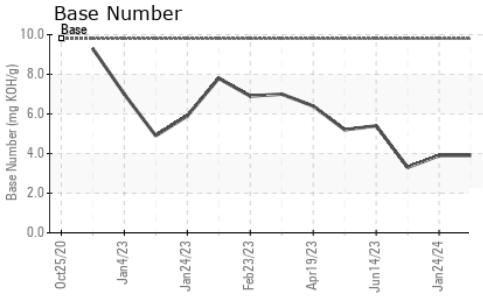
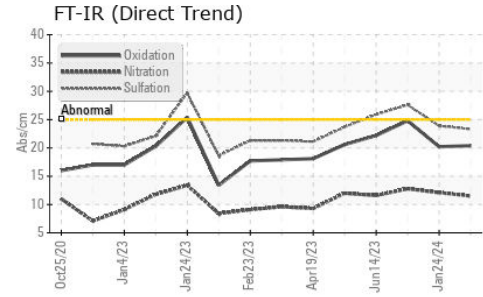
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0</b>	0	0
Nitration	Abs/cm	*ASTM D7624 >20	<b>11.5</b>	12.1	12.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>23.3</b>	23.9	27.6

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>20.4</b>	20.2	24.8
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>3.9</b>	3.9	3.3



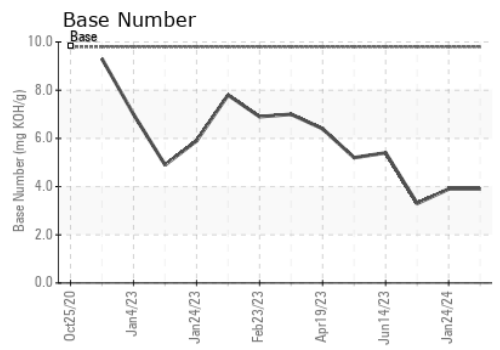
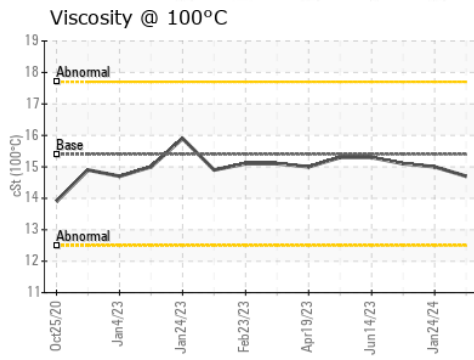
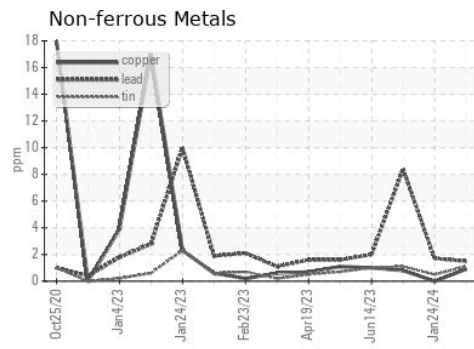
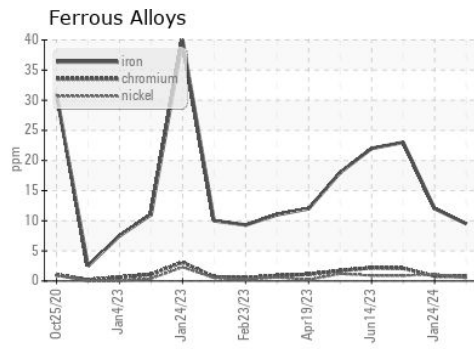
# OIL ANALYSIS REPORT



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	14.7	15.0

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0106751      **Received** : 15 Apr 2024  
**Lab Number** : 06148451      **Tested** : 16 Apr 2024  
**Unique Number** : 10978529      **Diagnosed** : 17 Apr 2024 - Jonathan Hester  
**Test Package** : FLEET

**GFL Environmental - 856 - Houston South**  
 8515 Highway 6 South  
 Houston, TX 77083  
 Contact: Jose Gonzalez  
 jgonzalez2@gflenv.com

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)