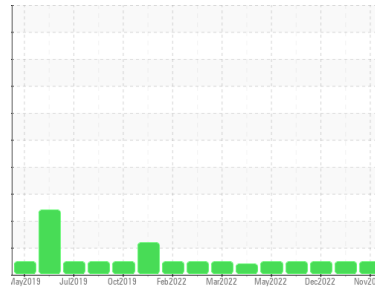




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**949008-205310**

Component  
**Natural Gas Engine**

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

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. ( Customer Sample Comment: Oil samples )

### 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>GFL0084632</b>	GFL0068572	GFL0058180
Sample Date	Client Info		<b>09 Nov 2023</b>	24 Jan 2023	01 Dec 2022
Machine Age	mls	Client Info	<b>170901</b>	165206	163677
Oil Age	mls	Client Info	<b>163677</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	Not Changd	Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>7</b>	5	34
Chromium	ppm	ASTM D5185m >4	<b>1</b>	<1	3
Nickel	ppm	ASTM D5185m >2	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >9	<b>2</b>	<1	4
Lead	ppm	ASTM D5185m >30	<b>&lt;1</b>	2	1
Copper	ppm	ASTM D5185m >35	<b>9</b>	<1	5
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>12</b>	34	15
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m 60	<b>51</b>	50	54
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185m 1010	<b>601</b>	587	555
Calcium	ppm	ASTM D5185m 1070	<b>1621</b>	1744	1586
Phosphorus	ppm	ASTM D5185m 1150	<b>746</b>	839	748
Zinc	ppm	ASTM D5185m 1270	<b>997</b>	1016	970
Sulfur	ppm	ASTM D5185m 2060	<b>2330</b>	2855	2880

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	<b>10</b>	4	8
Sodium	ppm	ASTM D5185m	<b>14</b>	3	3
Potassium	ppm	ASTM D5185m >20	<b>7</b>	1	1

## INFRA-RED

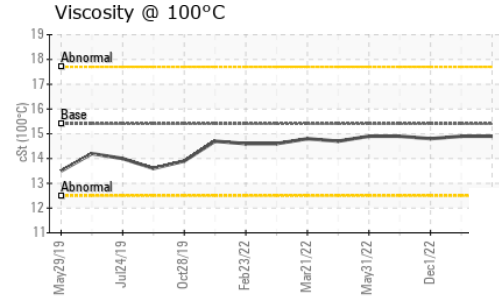
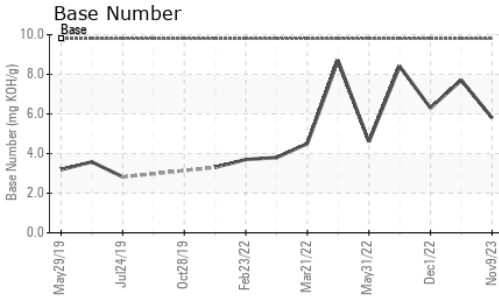
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>10.7</b>	8.0	11.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>21.1</b>	20.0	22.1

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>19.5</b>	16.6	18.7
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>5.8</b>	7.7	6.3



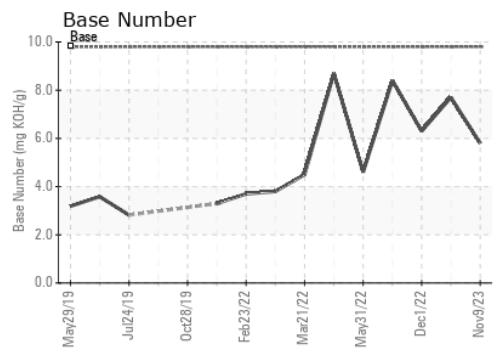
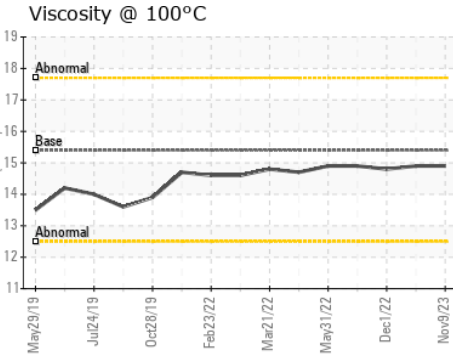
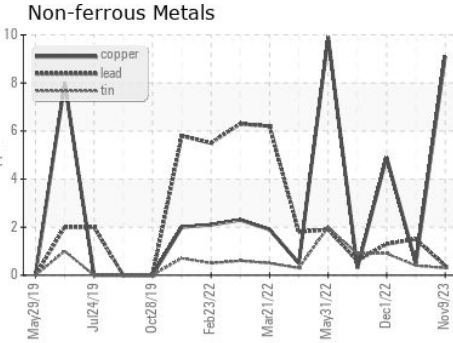
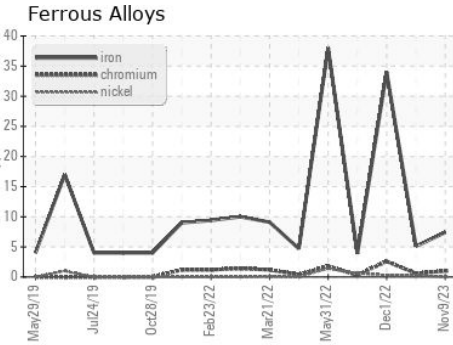
# OIL ANALYSIS REPORT



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	>0.1	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>14.9</b>	14.9	14.8

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0084632 **Received** : 14 Nov 2023  
**Lab Number** : **06007512** **Diagnosed** : 16 Nov 2023  
**Unique Number** : 10741274 **Diagnostician** : Don Baldrige  
**Test Package** : FLEET

**GFL Environmental - 856 - Houston South**  
 8515 Highway 6 South  
 Houston, TX  
 US 77083  
 Contact: Apolinar Zacarias  
 pzacariascano@gflenv.com  
 T:  
 F:

Certificate L2367  
 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)