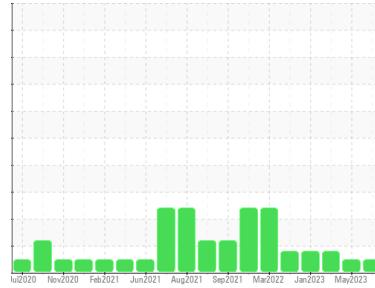




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**722007-5003**

Component  
**Diesel Engine**

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

## 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>GFL0058051</b>	GFL0070911	GFL0058023
Sample Date	Client Info	<b>10 Aug 2023</b>	17 May 2023	20 Feb 2023
Machine Age	hrs	<b>11110</b>	11050	11024
Oil Age	hrs	<b>86</b>	26	220
Oil Changed	Client Info	<b>Changed</b>	Not Changd	Changed
Sample Status		<b>NORMAL</b>	NORMAL	ABNORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<b>&lt;1.0</b>	0.7	▲ 7.2
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	<b>2</b>	5	27
Chromium	ppm ASTM D5185m >20	<b>0</b>	<1	2
Nickel	ppm ASTM D5185m >4	<b>0</b>	0	<1
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	0	<1
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>0</b>	0	3
Lead	ppm ASTM D5185m >40	<b>&lt;1</b>	0	0
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	0	<1
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	0	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>5</b>	7	0
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>63</b>	60	60
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	0	<1
Magnesium	ppm ASTM D5185m 1010	<b>1065</b>	933	834
Calcium	ppm ASTM D5185m 1070	<b>1224</b>	1085	1012
Phosphorus	ppm ASTM D5185m 1150	<b>1146</b>	1027	850
Zinc	ppm ASTM D5185m 1270	<b>1441</b>	1205	1064
Sulfur	ppm ASTM D5185m 2060	<b>4264</b>	3101	2957

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>4</b>	3	5
Sodium	ppm ASTM D5185m	<b>4</b>	2	<1
Potassium	ppm ASTM D5185m >20	<b>2</b>	<1	3

## INFRA-RED

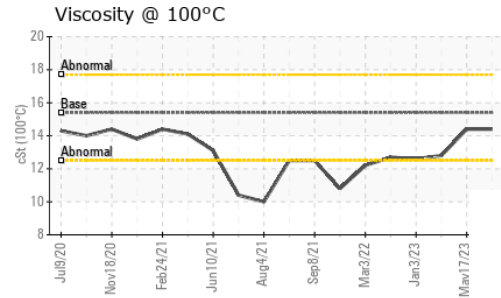
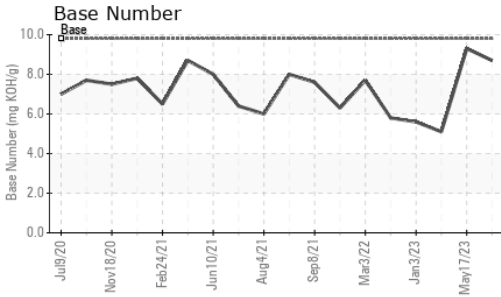
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.1</b>	0.1	0.5
Nitration	Abs/cm *ASTM D7624 >20	<b>4.7</b>	5.2	13.3
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>17.1</b>	18.2	24.6

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>13.3</b>	14.1	25.6
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.7</b>	9.3	5.1



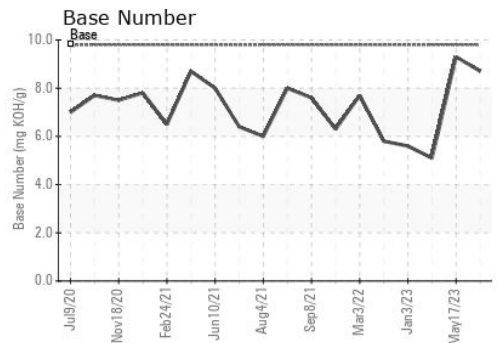
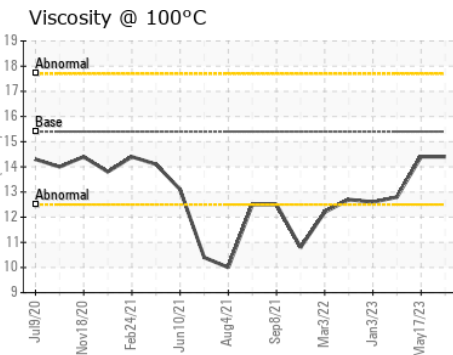
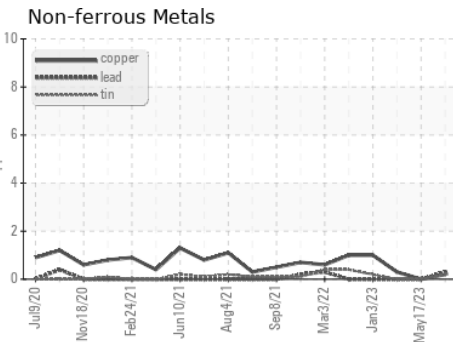
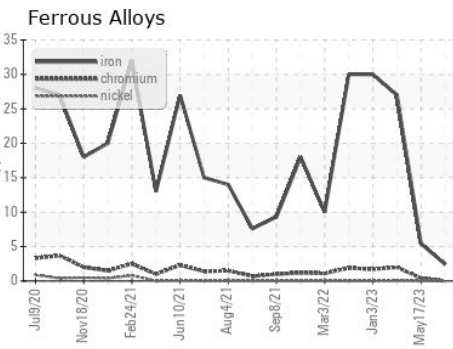
# OIL ANALYSIS REPORT



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>14.4</b>	14.4

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0058051 **Received** : 14 Aug 2023  
**Lab Number** : **05924028** **Diagnosed** : 15 Aug 2023  
**Unique Number** : 10603975 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 657 - Charlottesville Hauling**  
 5498 Richmond Road  
 Troy, VA  
 US 22974  
 Contact: Brian Ulickas  
 bulickas@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)

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F: