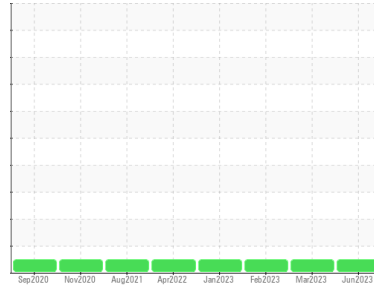




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**920088-205328**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (12 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	history 1	history 2
Sample Number	Client Info		<b>GFL0079359</b>	GFL0061285	GFL0067083
Sample Date	Client Info		<b>15 Jun 2023</b>	03 Mar 2023	23 Feb 2023
Machine Age	hrs	Client Info	<b>8342</b>	7629	7572
Oil Age	hrs	Client Info	<b>150</b>	650	150
Oil Changed	Client Info		<b>Not Chngd</b>	Changed	Not Chngd
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history 1	history 2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >165	<b>2</b>	11	10
Chromium	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m >4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>&lt;1</b>	2	1
Lead	ppm	ASTM D5185m >150	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >90	<b>&lt;1</b>	<1	0
Tin	ppm	ASTM D5185m >5	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m 0	<b>2</b>	3	2
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>60</b>	54	54
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m 1010	<b>975</b>	821	867
Calcium	ppm	ASTM D5185m 1070	<b>1053</b>	1008	1020
Phosphorus	ppm	ASTM D5185m 1150	<b>1072</b>	930	948
Zinc	ppm	ASTM D5185m 1270	<b>1306</b>	1124	1150
Sulfur	ppm	ASTM D5185m 2060	<b>3941</b>	2741	2948

## CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >35	<b>2</b>	2	1
Sodium	ppm	ASTM D5185m	<b>2</b>	3	2
Potassium	ppm	ASTM D5185m >20	<b>2</b>	3	2

## INFRA-RED

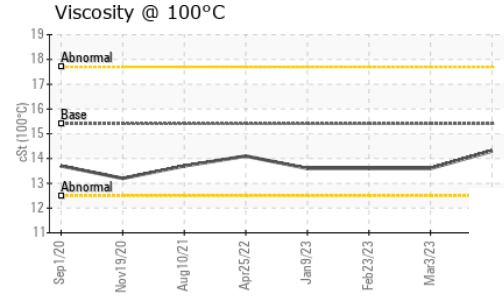
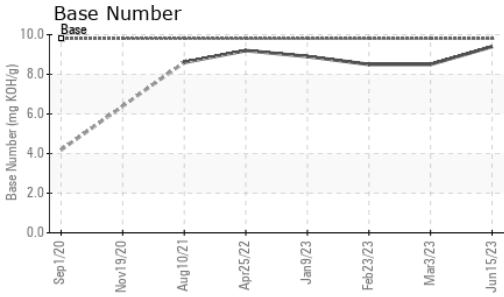
	method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844 >7.5	<b>0.2</b>	0.7	0.7
Nitration	Abs/cm	*ASTM D7624 >20	<b>5.2</b>	7.5	7.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>17.7</b>	19.1	19.0

## FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>13.1</b>	13.8	13.8
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>9.4</b>	8.5	8.5



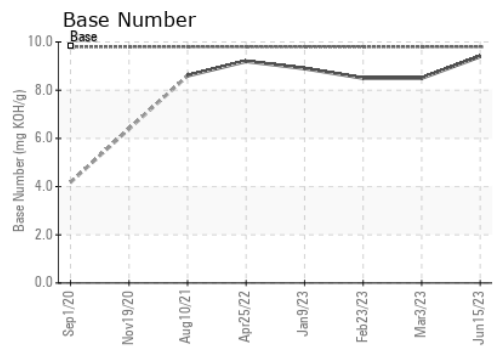
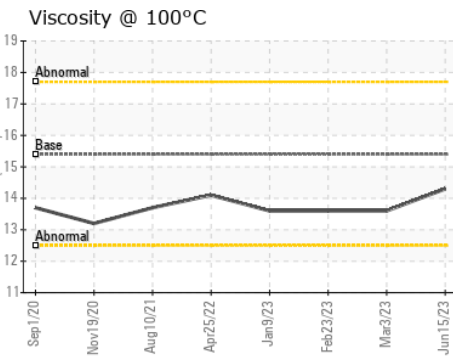
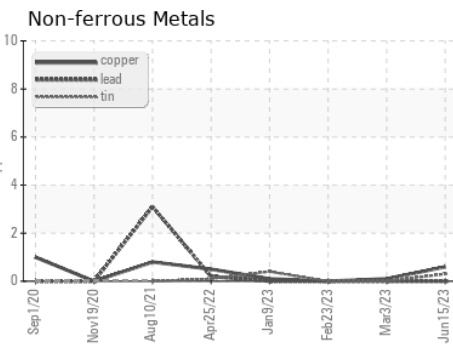
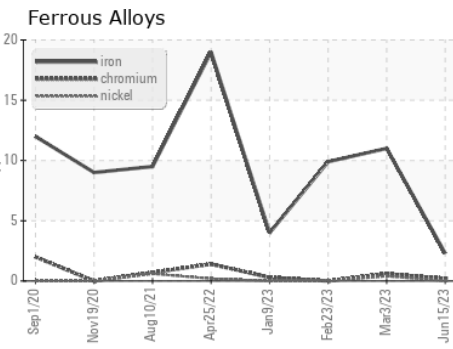
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2
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	history 1	history 2	
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.3</b>	13.6	13.6

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0079359 **Received** : 07 Jul 2023  
**Lab Number** : **05892021** **Diagnosed** : 09 Jul 2023  
**Unique Number** : 10547831 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 822 - Springfield Hauling**  
 2120 West Bennett Street  
 Springfield, MO  
 US 65807  
 Contact: Dennis Moore  
 dennis.moore@gflenv.com  
 T: (417)403-3641  
 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)