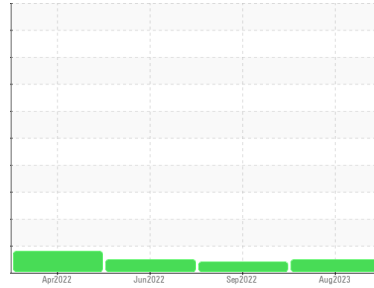




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**812019**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- QTS)**

## 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>GFL0079777</b>	GFL0031023	GFL0055058
Sample Date	Client Info		<b>18 Aug 2023</b>	21 Sep 2022	23 Jun 2022
Machine Age	hrs	Client Info	<b>3562</b>	1802	1195
Oil Age	hrs	Client Info	<b>599</b>	1802	1195
Oil Changed	Client Info		<b>Not Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	ATTENTION	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	0.6	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >120	<b>13</b>	23	22
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m >5	<b>5</b>	3	2
Titanium	ppm	ASTM D5185m >2	<b>8</b>	3	2
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	1
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	1	2
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m >330	<b>4</b>	30	220
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	2	2
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>13</b>	9	19
Barium	ppm	ASTM D5185m 0	<b>0</b>	1	0
Molybdenum	ppm	ASTM D5185m 60	<b>54</b>	65	64
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185m 1010	<b>903</b>	842	822
Calcium	ppm	ASTM D5185m 1070	<b>1220</b>	1193	1129
Phosphorus	ppm	ASTM D5185m 1150	<b>945</b>	922	872
Zinc	ppm	ASTM D5185m 1270	<b>1230</b>	1173	1094
Sulfur	ppm	ASTM D5185m 2060	<b>3254</b>	2785	2493

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>4</b>	6	13
Sodium	ppm	ASTM D5185m	<b>4</b>	2	2
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	2	2

## INFRA-RED

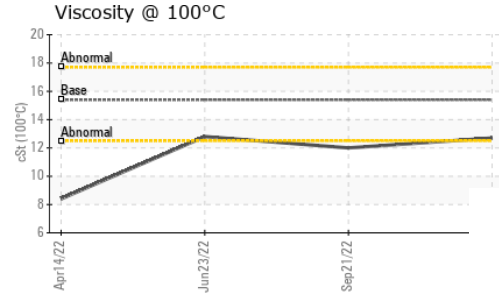
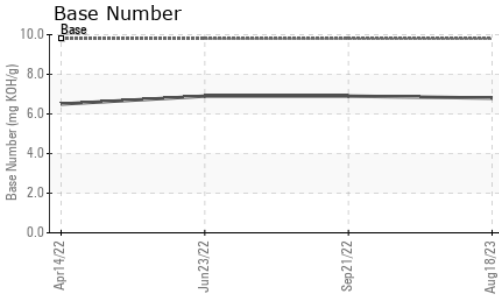
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.5</b>	0.6	0.5
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.9</b>	9.1	9.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.2</b>	21.7	20.7

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.7</b>	17.1	17.1
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>6.8</b>	6.9	6.9



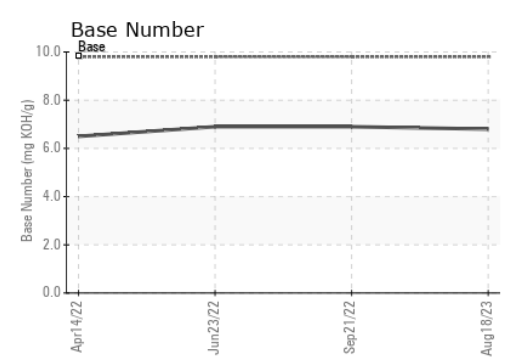
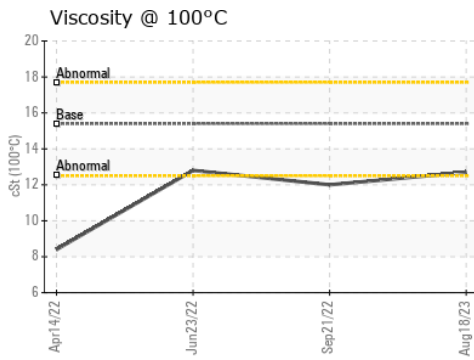
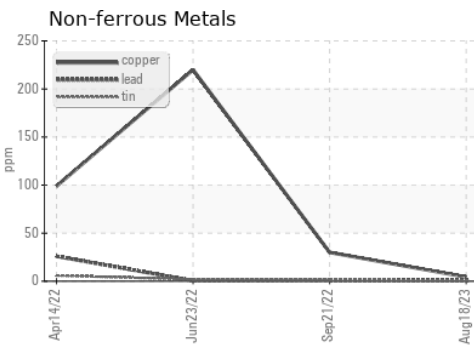
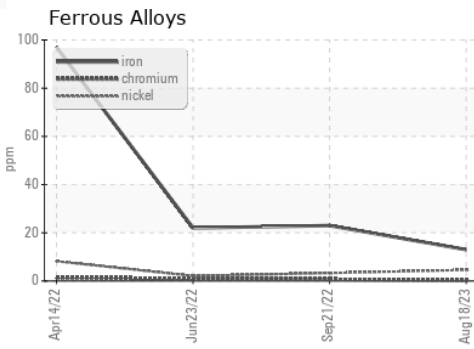
# OIL ANALYSIS REPORT



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	12.7	▲ 12.0	12.8

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0079777 **Received** : 08 Sep 2023  
**Lab Number** : 05945378 **Diagnosed** : 08 Sep 2023  
**Unique Number** : 10635990 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 663 - Lake Ariel (Scranton Hauling)**  
 17 Industrial Park Rd  
 Lake Ariel, PA  
 US 18436  
 Contact: Eric Merone  
 emerone@countyclecycling.net  
 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)