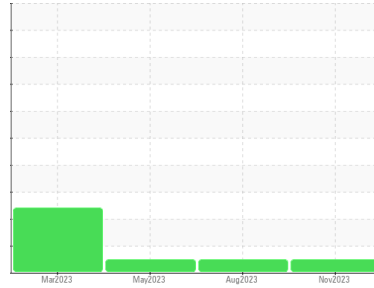




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**913027**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (11 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>GFL0095376</b>	GFL0076927	GFL0052979
Sample Date	Client Info		<b>21 Nov 2023</b>	21 Aug 2023	26 May 2023
Machine Age	hrs	Client Info	<b>2195</b>	1631	1077
Oil Age	hrs	Client Info	<b>564</b>	554	504
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	>3.0	<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 >120	<b>15</b>	13	14
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m >5	<b>4</b>	1	2
Titanium	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	4	4
Lead	ppm	ASTM D5185m >40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >330	<b>8</b>	53	131
Tin	ppm	ASTM D5185m >15	<b>1</b>	1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>5</b>	6	34
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>55</b>	61	63
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>884</b>	1009	894
Calcium	ppm	ASTM D5185m 1070	<b>1076</b>	1214	1163
Phosphorus	ppm	ASTM D5185m 1150	<b>828</b>	1040	903
Zinc	ppm	ASTM D5185m 1270	<b>1136</b>	1335	1136
Sulfur	ppm	ASTM D5185m 2060	<b>3072</b>	3313	3176

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>5</b>	5	8
Sodium	ppm	ASTM D5185m	<b>7</b>	8	4
Potassium	ppm	ASTM D5185m >20	<b>4</b>	1	2

## INFRA-RED

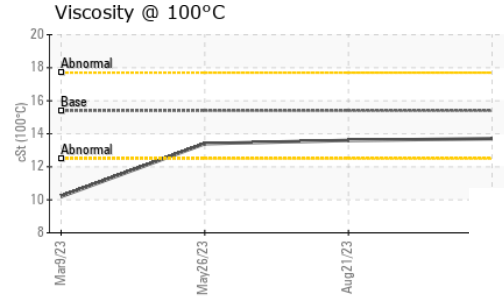
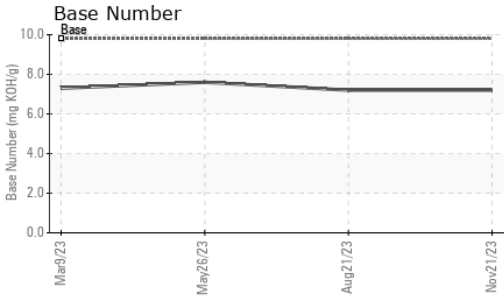
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.6</b>	0.5	0.5
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.7</b>	7.9	8.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.1</b>	19.5	20.4

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.6</b>	15.2	15.7
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.2</b>	7.2	7.6



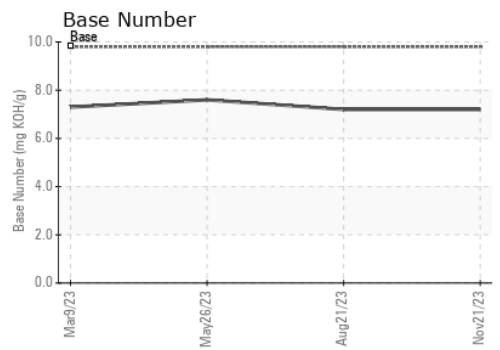
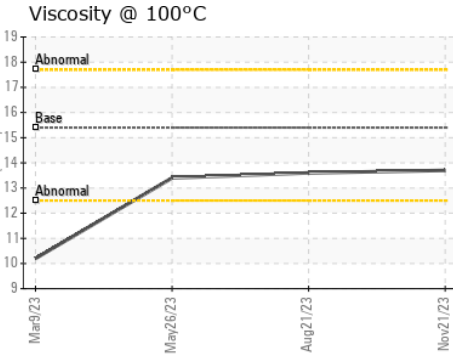
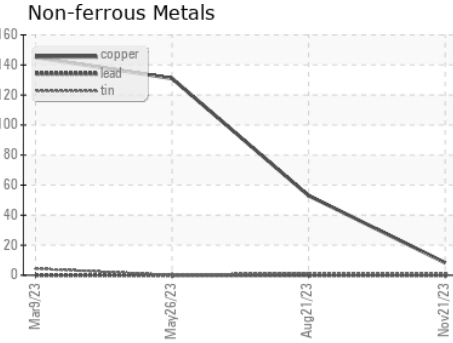
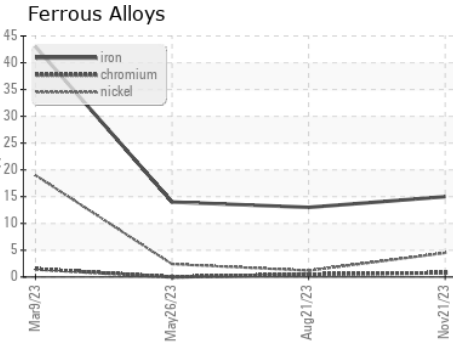
# OIL ANALYSIS REPORT



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>13.7</b>	13.6	13.4

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0095376 **Received** : 24 Nov 2023  
**Lab Number** : **06017210** **Diagnosed** : 28 Nov 2023  
**Unique Number** : 10756354 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 900 - Antigo HC**  
 1715 Deleglise St.  
 Antigo, WI  
 US 54409  
 Contact: Kirk Koss  
 kirk.koss@gflenv.com  
 T: (715)571-2784  
 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)