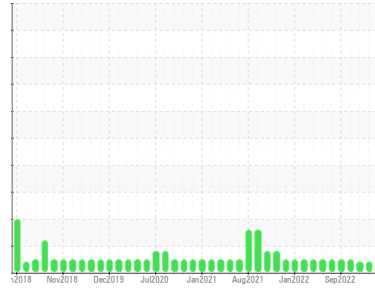




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**2683**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (10 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a new component breaking in.

### 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>GFL0073290</b>	GFL0073357	GFL0073320
Sample Date	Client Info		<b>08 Nov 2023</b>	07 Aug 2023	25 Apr 2023
Machine Age	hrs	Client Info	<b>600</b>	600	600
Oil Age	hrs	Client Info	<b>600</b>	600	600
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	ATTENTION	ATTENTION

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	<1.0	0.3
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >110	<b>32</b>	13	12
Chromium	ppm	ASTM D5185m >4	<b>2</b>	<1	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>3</b>	<1	1
Lead	ppm	ASTM D5185m >45	<b>30</b>	0	0
Copper	ppm	ASTM D5185m >85	<b>4</b>	4	2
Tin	ppm	ASTM D5185m >4	<b>1</b>	<1	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>18</b>	19	9
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>110</b>	75	92
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>905</b>	851	780
Calcium	ppm	ASTM D5185m 1070	<b>1164</b>	1057	1367
Phosphorus	ppm	ASTM D5185m 1150	<b>971</b>	926	1005
Zinc	ppm	ASTM D5185m 1270	<b>1233</b>	1121	1200
Sulfur	ppm	ASTM D5185m 2060	<b>2816</b>	3435	3952

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	<b>10</b>	5	<1
Sodium	ppm	ASTM D5185m	<b>224</b>	3	6
Potassium	ppm	ASTM D5185m >20	<b>50</b>	2	<1
Glycol	%	*ASTM D2982	<b>0.0</b>	NEG	NEG

## INFRA-RED

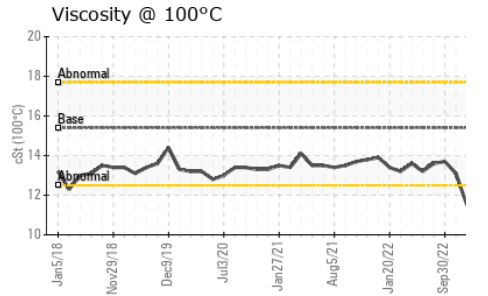
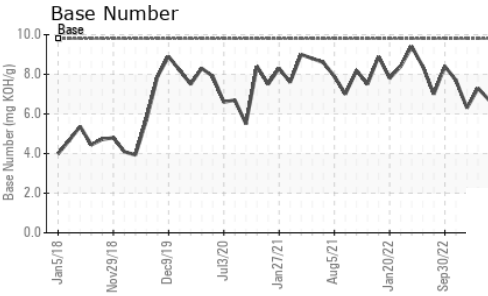
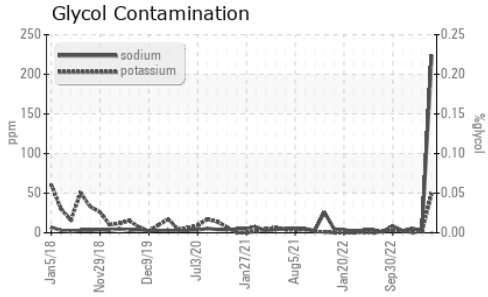
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>2.3</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>14.5</b>	8.1	9.0
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>28.3</b>	18.5	19.5

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>23.8</b>	13.9	15.3
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>6.7</b>	7.3	6.3



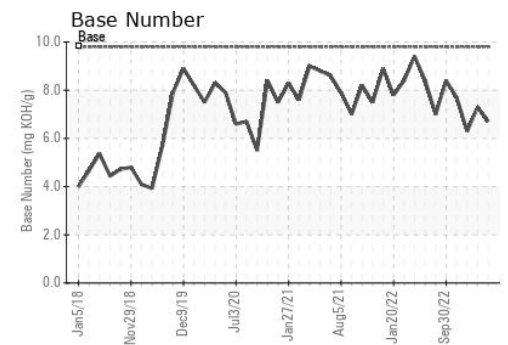
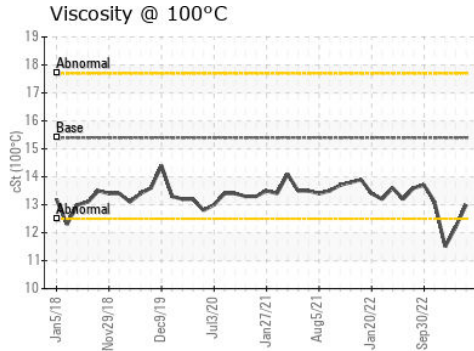
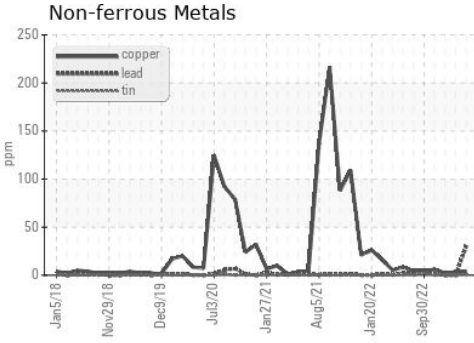
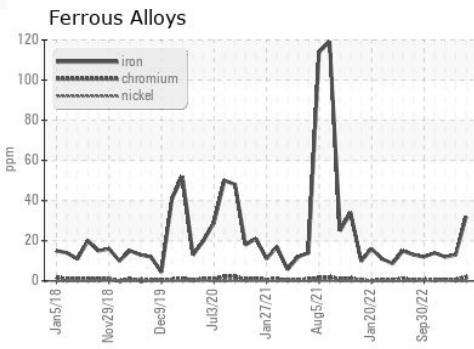
# OIL ANALYSIS REPORT



PARAMETER	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	13.0	▲ 12.2 ▲ 11.5

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0073290 **Received** : 14 Nov 2023  
**Lab Number** : 06007443 **Diagnosed** : 21 Nov 2023  
**Unique Number** : 10741205 **Diagnostician** : Wes Davis  
**Test Package** : FLEET ( Additional Tests: Glycol )

**GFL Environmental - 102 - Morristown TN**  
 415 Ryder Lane, PO Box 1894  
 Morristown, TN  
 US 37813  
 Contact: Ricky Dunlap  
 ricky.dunlap@gflenv.com  
 T: (800)207-6618  
 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)