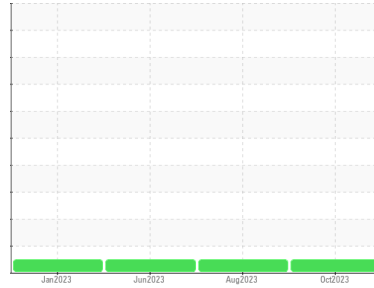




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**820037-251**

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>GFL0066139</b>	GFL0066130	GFL0060337
Sample Date	Client Info		<b>23 Oct 2023</b>	10 Aug 2023	02 Jun 2023
Machine Age	hrs	Client Info	<b>9276</b>	8741	8239
Oil Age	hrs	Client Info	<b>600</b>	600	500
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	>5	<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 >110	<b>3</b>	12	10
Chromium	ppm	ASTM D5185m >4	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m >25	<b>2</b>	4	2
Lead	ppm	ASTM D5185m >45	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >85	<b>0</b>	0	0
Tin	ppm	ASTM D5185m >4	<b>0</b>	0	<1
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>0</b>	11	13
Barium	ppm	ASTM D5185m 0	<b>4</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>61</b>	77	64
Manganese	ppm	ASTM D5185m 0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m 1010	<b>928</b>	1175	970
Calcium	ppm	ASTM D5185m 1070	<b>1055</b>	1346	1134
Phosphorus	ppm	ASTM D5185m 1150	<b>972</b>	1231	1037
Zinc	ppm	ASTM D5185m 1270	<b>1206</b>	1647	1313
Sulfur	ppm	ASTM D5185m 2060	<b>3012</b>	4816	3689

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	<b>0</b>	5	3
Sodium	ppm	ASTM D5185m	<b>0</b>	2	3
Potassium	ppm	ASTM D5185m >20	<b>0</b>	0	2

## INFRA-RED

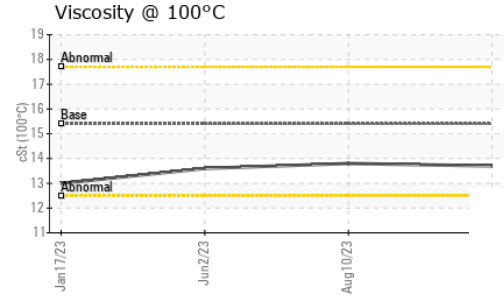
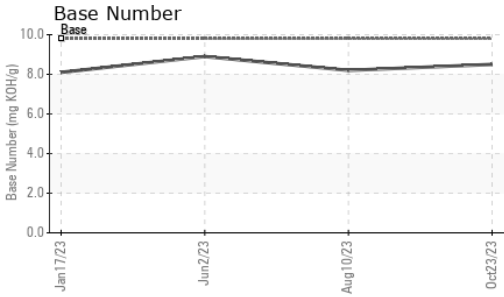
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.3</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.5</b>	7.6	7.7
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.2</b>	19.7	19.9

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.4</b>	15.6	15.6
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.5</b>	8.2	8.9



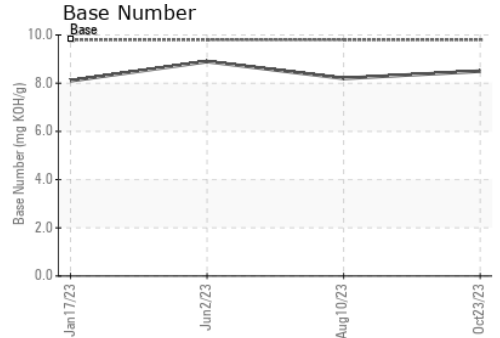
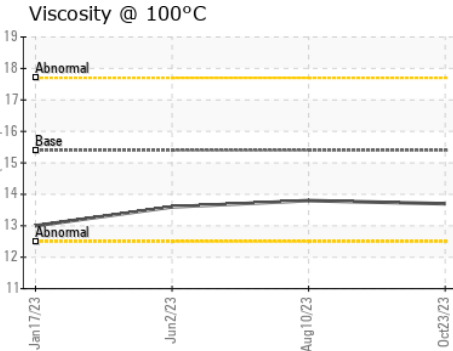
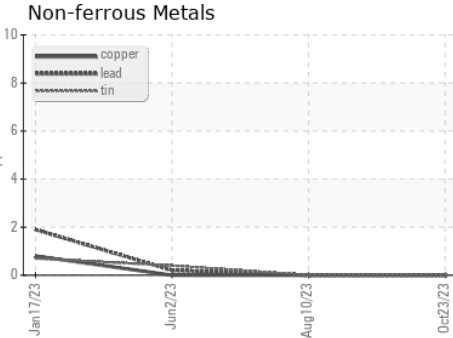
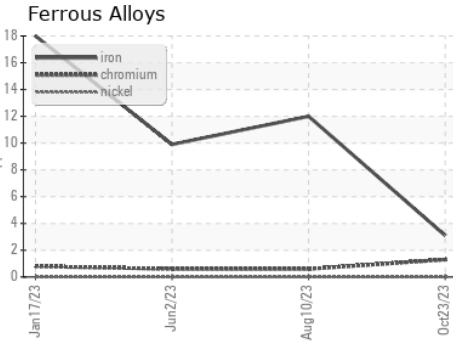
# OIL ANALYSIS REPORT



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	<b>13.7</b>	13.8	13.6

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0066139 **Recieved** : 02 Jan 2024  
**Lab Number** : 06048553 **Diagnosed** : 03 Jan 2024  
**Unique Number** : 10809161 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 904A - Thorpe**  
 N14985 Tieman Ave  
 Thorp, WI  
 US 54771  
 Contact: Andy Kane  
 akane@gflenv.com  
 T: (715)202-3420  
 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)