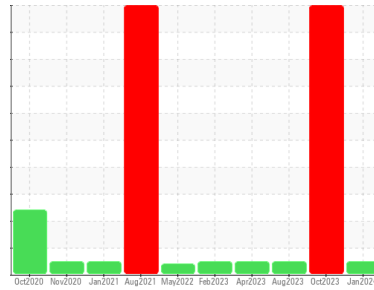




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**910041**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (8 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>GFL0068883</b>	GFL0097228	GFL0083035
Sample Date	Client Info	<b>13 Jan 2024</b>	24 Oct 2023	10 Aug 2023
Machine Age	days	<b>1138</b>	0	0
Oil Age	days	<b>1138</b>	0	0
Oil Changed	Client Info	<b>Changed</b>	Not Changd	Not Changd
Sample Status		<b>NORMAL</b>	SEVERE	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 >100	<b>36</b>	210	33
Chromium	ppm ASTM D5185m >20	<b>2</b>	4	2
Nickel	ppm ASTM D5185m >4	<b>0</b>	<1	<1
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	<1	<1
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>11</b>	10	13
Lead	ppm ASTM D5185m >40	<b>0</b>	2	<1
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	7	2
Tin	ppm ASTM D5185m >15	<b>0</b>	<1	<1
Vanadium	ppm ASTM D5185m	<b>&lt;1</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>12</b>	83	20
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>63</b>	139	91
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	1	<1
Magnesium	ppm ASTM D5185m 1010	<b>820</b>	870	1035
Calcium	ppm ASTM D5185m 1070	<b>1071</b>	1019	1426
Phosphorus	ppm ASTM D5185m 1150	<b>860</b>	1040	1154
Zinc	ppm ASTM D5185m 1270	<b>1100</b>	1137	1406
Sulfur	ppm ASTM D5185m 2060	<b>2502</b>	2710	3304

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>9</b>	80	13
Sodium	ppm ASTM D5185m	<b>5</b>	2031	6
Potassium	ppm ASTM D5185m >20	<b>21</b>	11	26

## INFRA-RED

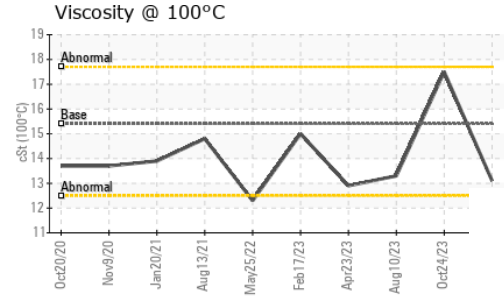
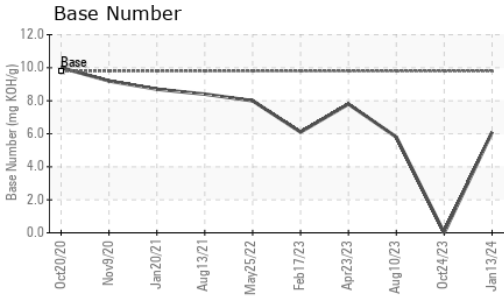
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>1.2</b>	3.9	1.2
Nitration	Abs/cm *ASTM D7624 >20	<b>10.5</b>	5.3	10.2
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>23.1</b>	18.5	23.0

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>18.0</b>	5.8	17.6
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>6.1</b>	0.0	5.8



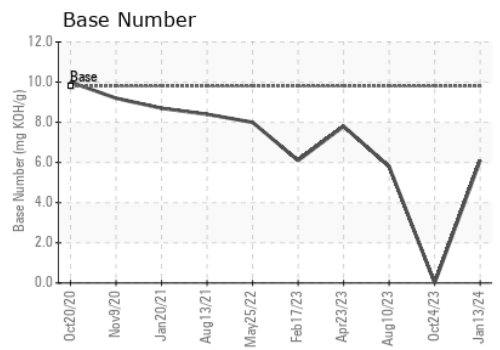
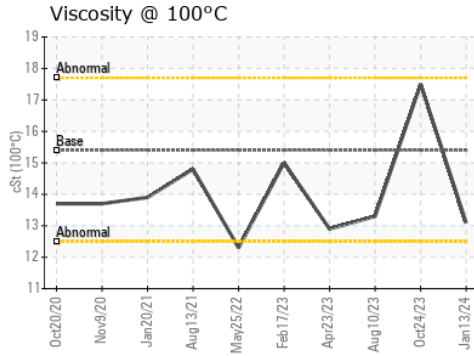
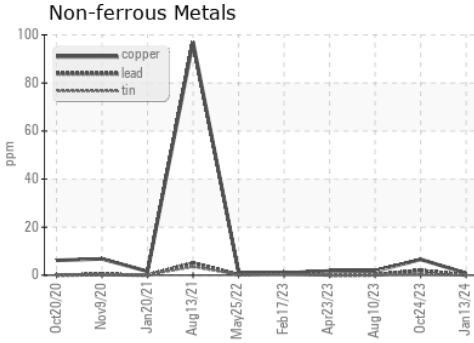
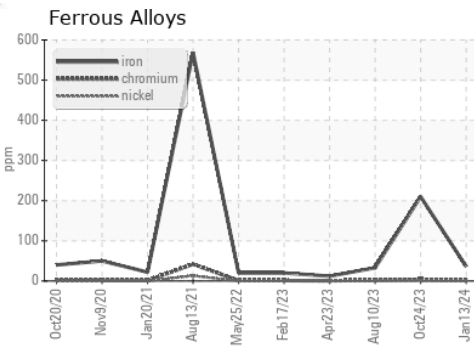
# OIL ANALYSIS REPORT



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>13.1</b>	▲ 17.5	13.3

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0068883 **Recieved** : 22 Jan 2024  
**Lab Number** : 06066671 **Diagnosed** : 22 Jan 2024  
**Unique Number** : 10843348 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 072 - Americus - Transwaste**  
 361 McMath Mill Road  
 Americus, GA  
 US 31719  
 Contact: RICHARD HEINZERLING  
 richard.heinzerling@gflenv.com  
 T: (229)924-3669  
 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)