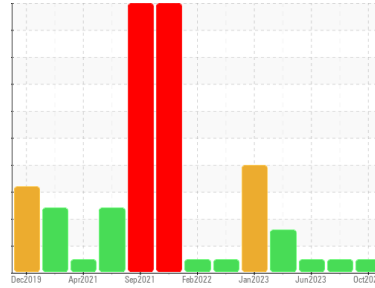




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**2393**

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>GFL0080522</b>	GFL0080562	GFL0066861
Sample Date	Client Info	<b>17 Oct 2023</b>	04 Oct 2023	21 Jun 2023
Machine Age	hrs	<b>24658</b>	24658	24658
Oil Age	hrs	<b>24658</b>	24658	24658
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
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >75	<b>56</b>	41	62
Chromium	ppm	ASTM D5185m >5	<b>4</b>	3	5
Nickel	ppm	ASTM D5185m >4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	<1
Aluminum	ppm	ASTM D5185m >15	<b>4</b>	2	4
Lead	ppm	ASTM D5185m >25	<b>&lt;1</b>	0	1
Copper	ppm	ASTM D5185m >100	<b>3</b>	2	4
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	<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>5</b>	4	1
Barium	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>67</b>	63	70
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>1020</b>	1015	987
Calcium	ppm	ASTM D5185m 1070	<b>1117</b>	1124	1206
Phosphorus	ppm	ASTM D5185m 1150	<b>1122</b>	1128	1109
Zinc	ppm	ASTM D5185m 1270	<b>1373</b>	1341	1332
Sulfur	ppm	ASTM D5185m 2060	<b>3143</b>	3222	3341

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	<b>13</b>	10	14
Sodium	ppm	ASTM D5185m	<b>6</b>	5	3
Potassium	ppm	ASTM D5185m >20	<b>0</b>	<1	2

## INFRA-RED

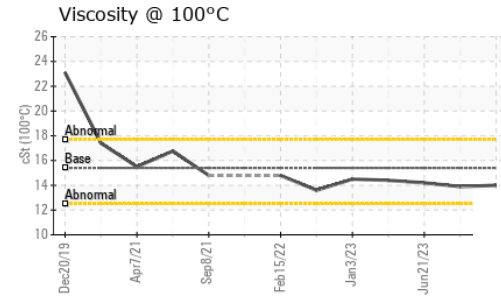
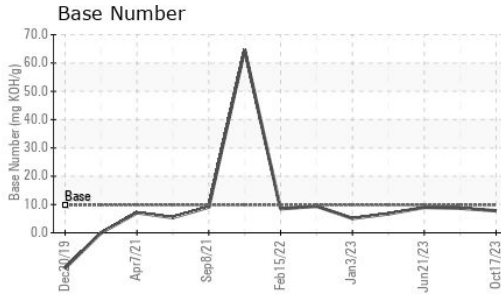
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >6	<b>1.6</b>	1.4	1.7
Nitration	Abs/cm	*ASTM D7624 >20	<b>11.1</b>	10.2	12.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>22.5</b>	22.0	23.6

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>18.5</b>	17.6	19.6
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.8</b>	8.7	9.0



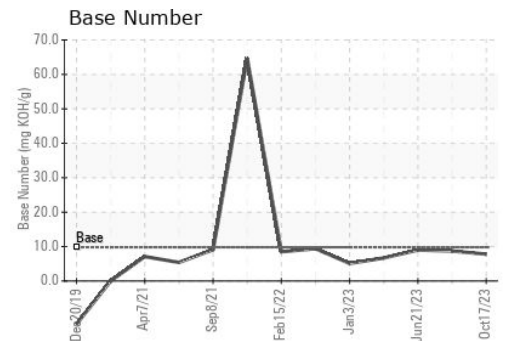
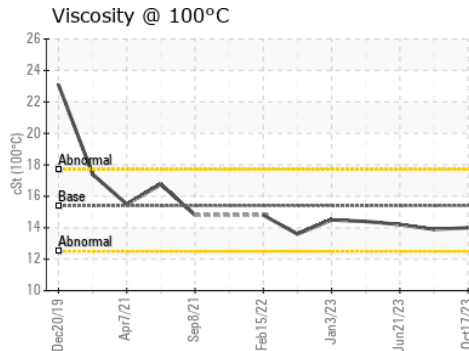
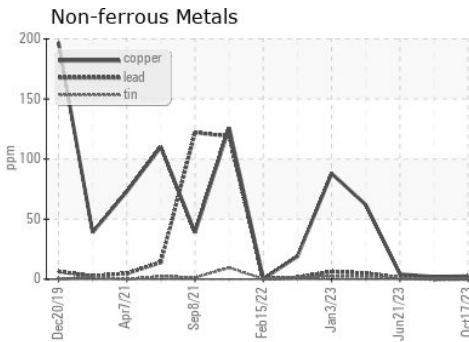
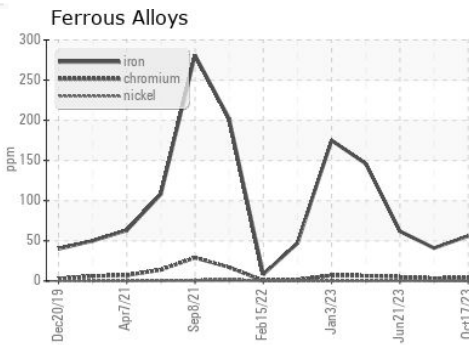
# OIL ANALYSIS REPORT



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>14.0</b>	13.9	14.2

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0080522 **Received** : 18 Oct 2023  
**Lab Number** : **05982243** **Diagnosed** : 18 Oct 2023  
**Unique Number** : 10699538 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 018 - Fayetteville**  
 4621 Marracco Drive  
 Hope Mills, NC  
 US 28348  
 Contact: Robert Carter  
 robert.carter@gflenv.com  
 T: (910)596-1170  
 F:

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)