



# OIL ANALYSIS REPORT

Sample Rating Trend

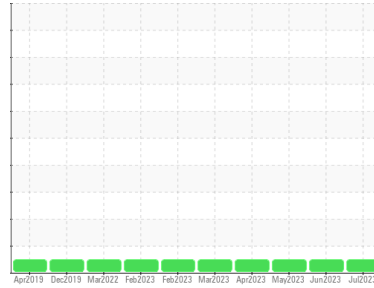
**NORMAL**



Machine Id  
**2680**

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>GFL0083153</b>	GFL0083163	GFL0083180
Sample Date	Client Info		<b>08 Jul 2023</b>	14 Jun 2023	25 May 2023
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Not Changed</b>	Changed	N/A
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 >165	<b>65</b>	8	8
Chromium	ppm	ASTM D5185m >5	<b>4</b>	<1	<1
Nickel	ppm	ASTM D5185m >4	<b>2</b>	0	<1
Titanium	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>11</b>	<1	1
Lead	ppm	ASTM D5185m >150	<b>&lt;1</b>	0	1
Copper	ppm	ASTM D5185m >90	<b>6</b>	2	3
Tin	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>10</b>	8	6
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>60</b>	62	61
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>803</b>	956	948
Calcium	ppm	ASTM D5185m 1070	<b>1199</b>	1237	1173
Phosphorus	ppm	ASTM D5185m 1150	<b>948</b>	1018	1034
Zinc	ppm	ASTM D5185m 1270	<b>1139</b>	1244	1278
Sulfur	ppm	ASTM D5185m 2060	<b>3119</b>	3594	3796

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >35	<b>17</b>	5	6
Sodium	ppm	ASTM D5185m	<b>21</b>	3	3
Potassium	ppm	ASTM D5185m >20	<b>3</b>	<1	2

## INFRA-RED

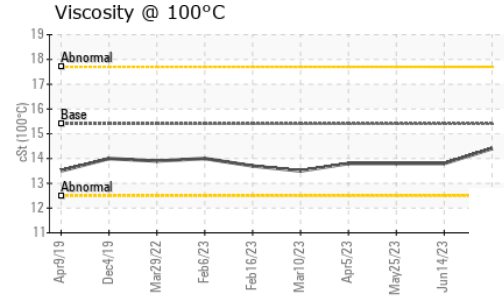
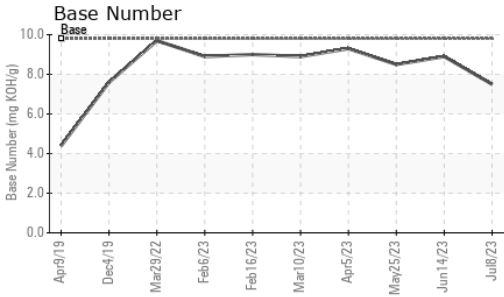
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >7.5	<b>2</b>	0.4	0.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>10.8</b>	8.4	7.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>24.0</b>	19.7	20.0

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>18.1</b>	15.1	15.6
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.5</b>	8.9	8.5



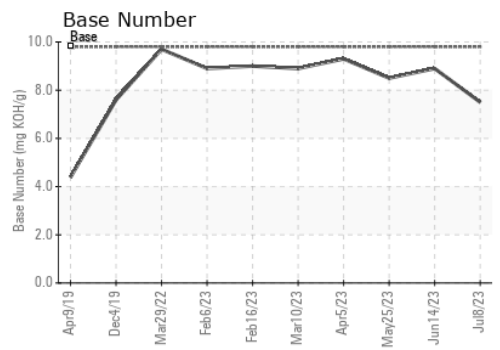
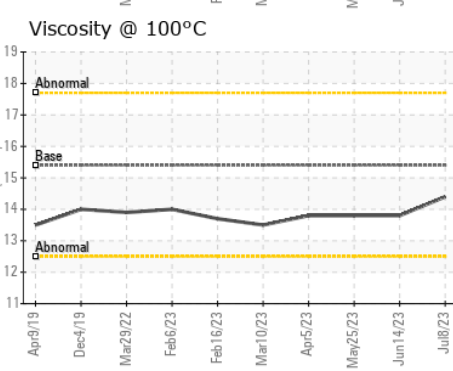
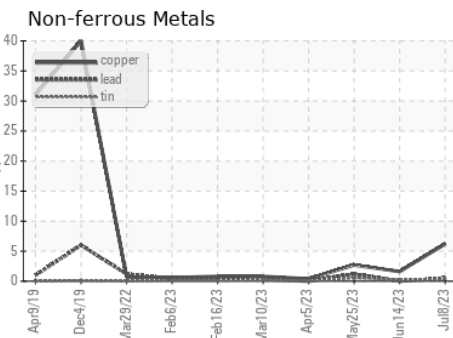
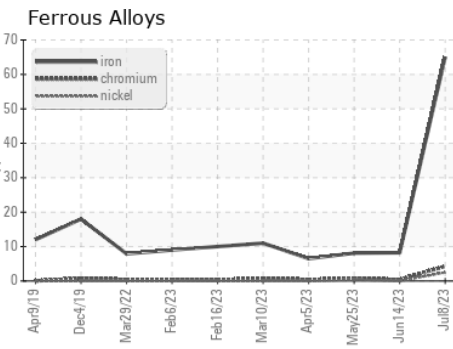
# OIL ANALYSIS REPORT



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>14.4</b>	13.8	13.8

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0083153  
**Lab Number** : **05897238**  
**Unique Number** : 10553048  
**Test Package** : FLEET  
**Received** : 13 Jul 2023  
**Diagnosed** : 14 Jul 2023  
**Diagnostician** : Don Baldrige

**GFL Environmental - 074 - Douglas - Transwaste**  
 1219 Landfill Road  
 Douglas, GA  
 US 31533  
 Contact: CURTIS JACOBS  
 CURTIS.JACOBS@GFLENV.COM  
 T: (912)384-6001  
 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)