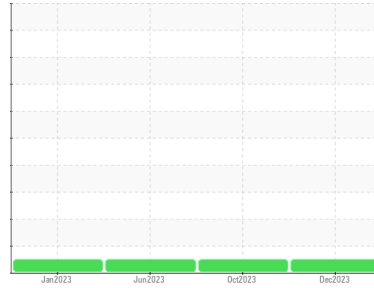




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**811058**  
 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>GFL0098440</b>	GFL0084546	GFL0078782
Sample Date	Client Info		<b>20 Dec 2023</b>	06 Oct 2023	28 Jun 2023
Machine Age	hrs	Client Info	<b>4949</b>	4567	4009
Oil Age	hrs	Client Info	<b>4949</b>	899	0
Oil Changed	Client Info		<b>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
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 >120	<b>13</b>	14	10
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >5	<b>&lt;1</b>	<1	0
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>2</b>	1	<1
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m >330	<b>2</b>	2	<1
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>1</b>	0	2
Barium	ppm	ASTM D5185m 0	<b>8</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>63</b>	62	67
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>989</b>	945	1111
Calcium	ppm	ASTM D5185m 1070	<b>1108</b>	1032	1159
Phosphorus	ppm	ASTM D5185m 1150	<b>923</b>	947	1131
Zinc	ppm	ASTM D5185m 1270	<b>1239</b>	1160	1409
Sulfur	ppm	ASTM D5185m 2060	<b>2844</b>	2499	3924

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>4</b>	4	2
Sodium	ppm	ASTM D5185m	<b>0</b>	6	2
Potassium	ppm	ASTM D5185m >20	<b>2</b>	0	0

## INFRA-RED

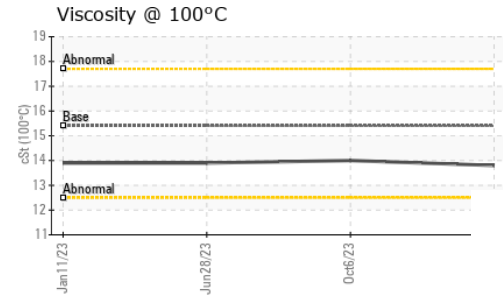
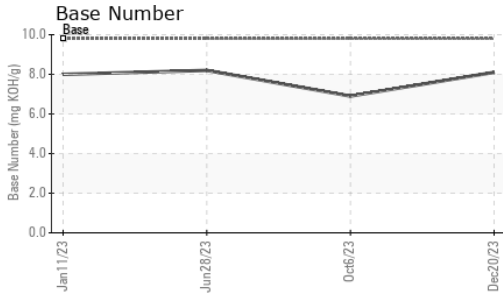
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.9</b>	1.1	0.7
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.9</b>	8.3	7.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.5</b>	20.3	19.7

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.8</b>	15.3	14.8
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.1</b>	6.9	8.2



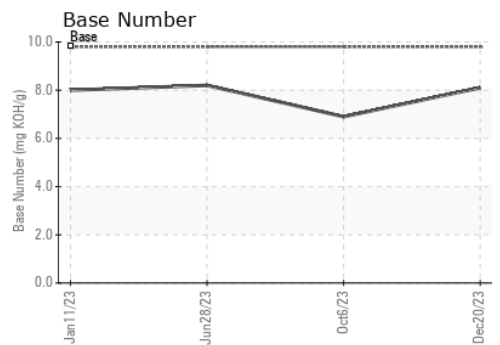
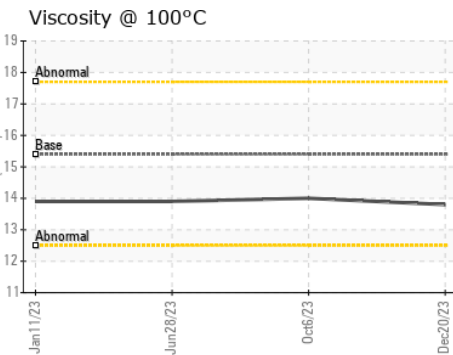
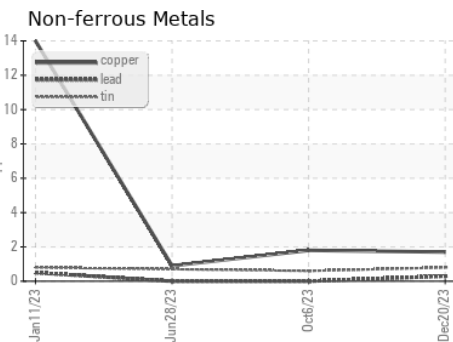
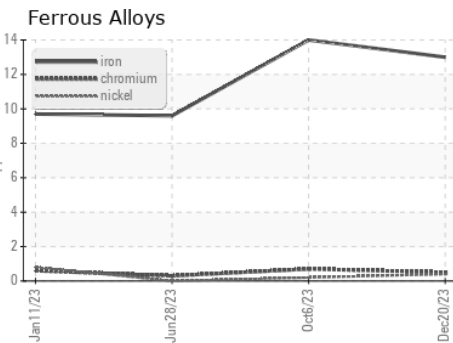
# OIL ANALYSIS REPORT



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	<b>13.8</b>	14.0	13.9

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0098440  
 Lab Number : 06053459  
 Unique Number : 10819408  
 Test Package : FLEET

GFL Environmental - 918 - Hartland HC  
 630 E Industrial Drive  
 Hartland, WI  
 US 53029  
 Contact: David McCall  
 david.mccall@gflenv.com  
 T: (262)369-3069  
 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)