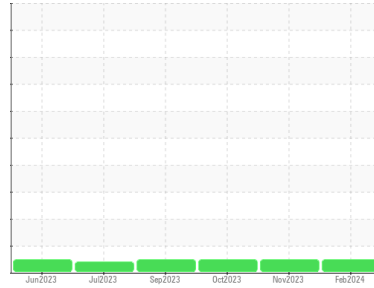




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**529013**

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>GFL0112769</b>	GFL0091742	GFL0091798	
Sample Date	Client Info	<b>07 Feb 2024</b>	20 Nov 2023	05 Oct 2023	
Machine Age	hrs	Client Info	<b>11112</b>	10688	10405
Oil Age	hrs	Client Info	<b>10688</b>	10688	10405
Oil Changed	Client Info	<b>Not Changed</b>	Changed	Not 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>13</b>	10	8
Chromium	ppm ASTM D5185m >4	<b>&lt;1</b>	0	0
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>&lt;1</b>	0	0
Aluminum	ppm ASTM D5185m >25	<b>1</b>	<1	7
Lead	ppm ASTM D5185m >45	<b>0</b>	0	<1
Copper	ppm ASTM D5185m >85	<b>1</b>	2	2
Tin	ppm ASTM D5185m >4	<b>&lt;1</b>	<1	0
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>2</b>	0	<1
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>60</b>	59	63
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	0
Magnesium	ppm ASTM D5185m 1010	<b>1026</b>	984	1060
Calcium	ppm ASTM D5185m 1070	<b>1074</b>	1050	1104
Phosphorus	ppm ASTM D5185m 1150	<b>1068</b>	1020	1083
Zinc	ppm ASTM D5185m 1270	<b>1299</b>	1269	1413
Sulfur	ppm ASTM D5185m 2060	<b>3122</b>	2918	3367

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >30	<b>6</b>	6	6
Sodium	ppm ASTM D5185m	<b>&lt;1</b>	1	1
Potassium	ppm ASTM D5185m >20	<b>1</b>	2	<1

## INFRA-RED

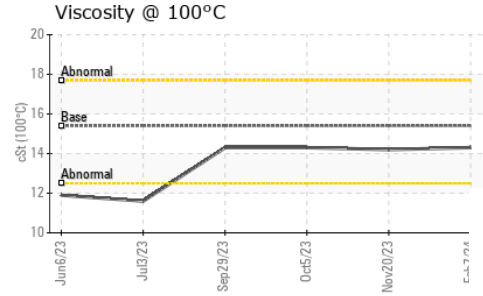
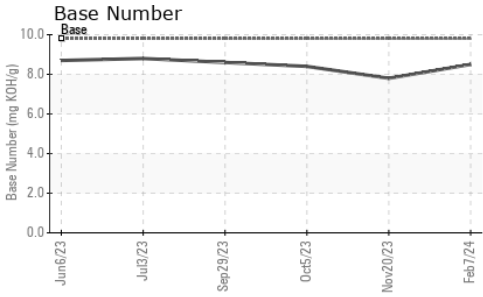
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.4</b>	0.5	0.3
Nitration	Abs/cm *ASTM D7624 >20	<b>8.0</b>	8.8	8.1
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>19.3</b>	20.7	19.7

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>15.3</b>	16.8	15.7
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.5</b>	7.8	8.4



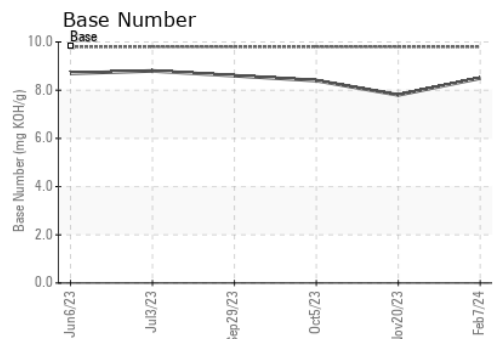
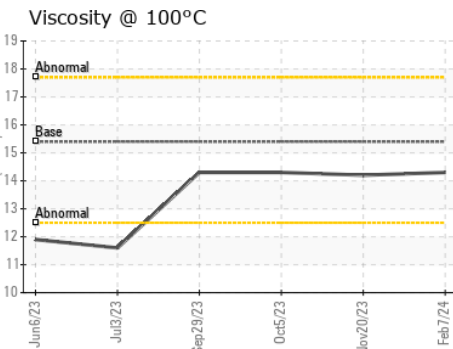
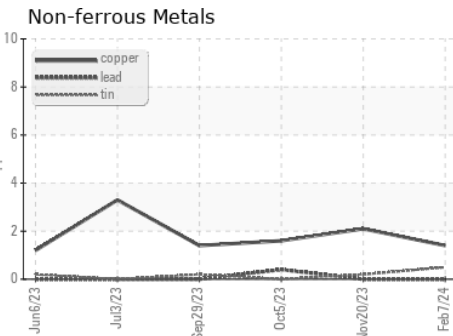
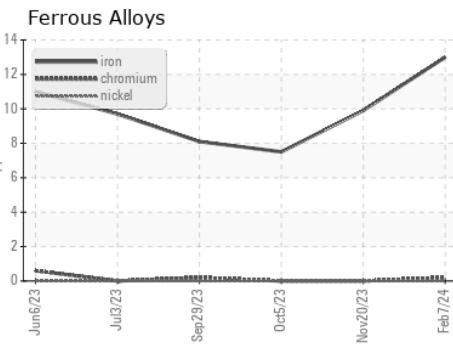
# OIL ANALYSIS REPORT



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>14.3</b>	14.2	14.3

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0112769  
**Lab Number** : 06089361  
**Unique Number** : 10876806  
**Test Package** : FLEET

**GFL Environmental - 654 - Richmond Hauling**  
 11800 Lewis Road  
 Chester, VA  
 US 23831  
 Contact: Jimmy Mayes  
 jmayes@gflenv.com

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)

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F: