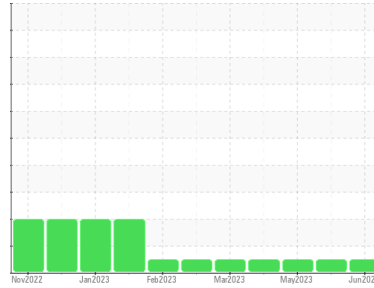




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**{UNASSIGNED}**

Machine Id  
**913025**

Component  
**Front Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (40 QTS)**

## 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	history 1	history 2
Sample Number	Client Info		<b>GFL0070049</b>	GFL0070064	GFL0070043
Sample Date	Client Info		<b>14 Jun 2023</b>	23 May 2023	03 May 2023
Machine Age	hrs	Client Info	<b>1651</b>	1498	1349
Oil Age	hrs	Client Info	<b>1207</b>	1207	1207
Oil Changed	Client Info		<b>N/A</b>	Not Changd	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history 1	history 2
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	history 1	history 2
Iron	ppm	ASTM D5185m >120	<b>21</b>	15	10
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >5	<b>2</b>	2	2
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m >20	<b>&lt;1</b>	2	<1
Lead	ppm	ASTM D5185m >40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >330	<b>77</b>	54	47
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m 0	<b>0</b>	2	1
Barium	ppm	ASTM D5185m 0	<b>0</b>	5	0
Molybdenum	ppm	ASTM D5185m 60	<b>60</b>	57	61
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>1008</b>	853	1024
Calcium	ppm	ASTM D5185m 1070	<b>1126</b>	910	1148
Phosphorus	ppm	ASTM D5185m 1150	<b>985</b>	849	1085
Zinc	ppm	ASTM D5185m 1270	<b>1281</b>	1018	1360
Sulfur	ppm	ASTM D5185m 2060	<b>3300</b>	2671	3880

## CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	<b>7</b>	5	5
Sodium	ppm	ASTM D5185m	<b>2</b>	<1	2
Potassium	ppm	ASTM D5185m >20	<b>3</b>	3	6

## INFRA-RED

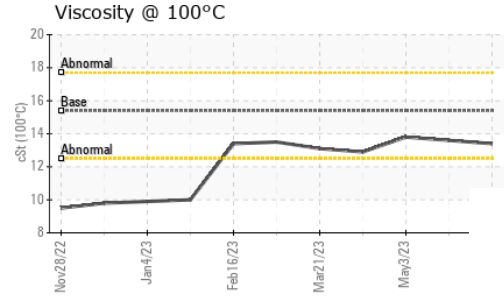
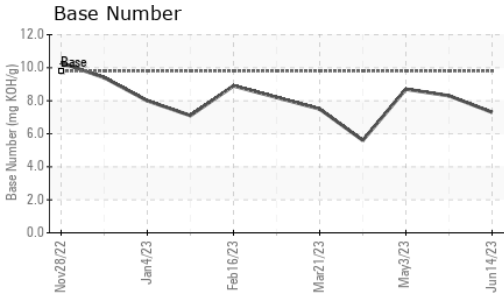
	method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844 >4	<b>0.4</b>	0.3	0.2
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.9</b>	6.9	5.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.4</b>	19.7	18.7

## FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.6</b>	14.5	14.0
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.3</b>	8.3	8.7



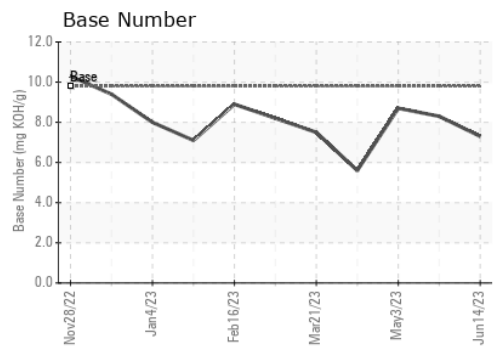
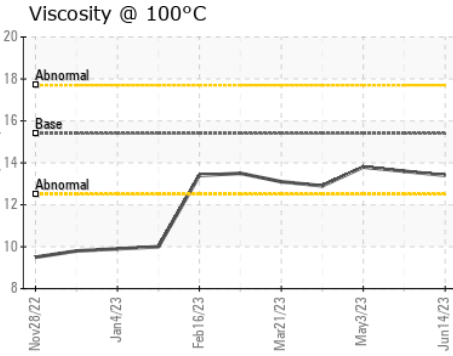
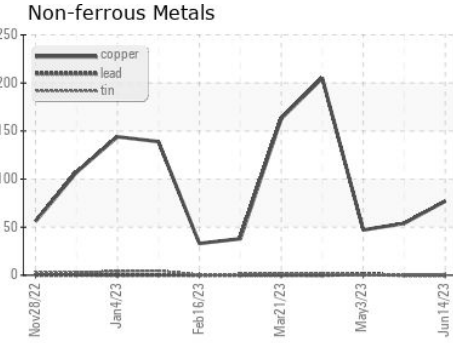
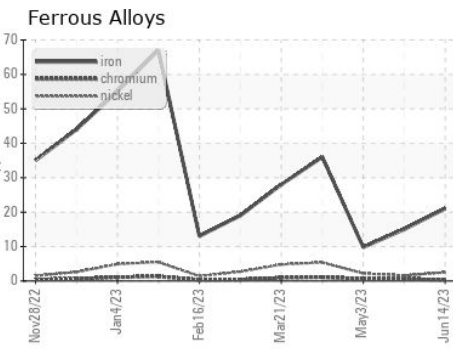
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2
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	history 1	history 2	
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.4</b>	13.6	13.8

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0070049 **Received** : 03 Jul 2023  
**Lab Number** : 05889650 **Diagnosed** : 05 Jul 2023  
**Unique Number** : 10540133 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

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 Clarksville, TN  
 US 37042  
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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)